

CONSUMERS' RESEARCH

Bulletin



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CONSUMERS' RESEARCH

BULLETIN

Vol. 16 • No. 1

July 1945

Off the Editor's Chest

WHAT has Canada got that the U. S. doesn't have? The answer, judging from news pictures and reports of the crowds of women flocking back to Detroit with market baskets well filled from Windsor's amply-stocked markets, is MEAT, all that consumers need and care to pay for. Furthermore, Americans who bought their roasts and steaks in Canada were obliged to give up points to the U. S. Customs collectors at the border. Butcher shops and restaurants in Canada apparently are abundantly supplied with sirloin steaks, beef roasts, turkeys, and chickens, as well as ham and bacon, although pork and pork products are not so plentiful as beef. Prices are on the average about the same as those in the United States. One reporter in March 1945 noted prices in one large market in Toronto as: roasting chicken, 43c; rolled rib roast, 44c; loin pork roast, 35c; porterhouse steak, 48c; minced beef (hamburger), 10c; turkey, 43c.

For many months, it has been the custom of visitors in Canada to send back mouth-watering tales of ample and reasonably-priced restaurant meals, eggs with ham, coffee with thick cream, a thick sirloin steak in a leading Ottawa hotel for \$1.75, a club sandwich with plenty of bacon and chicken for 60c; and in a cheap but clean restaurant, a plate lunch of pork chops, fried potatoes, salad, and coffee for 30c.

The per capita consumption in Canada, according to the Minister of Agriculture, was 151.4 pounds of meat in 1943 when rationing was in effect; while in 1944 without rationing, it was somewhat less, 148.4 pounds. The figures included the consump-

tion of beef, veal, pork, lamb, canned meats, liver, kidneys, and other meat products. The problem of dividing up and distributing supplies in Canada was, as one Canadian official pointed out, very similar to that in the United States because both countries have the problem of vast areas and wide diversities in dietary habits.

With the pleasant picture of Canada's essential food supply, contrast our own butcher shops and restaurants these last few weeks. Cold cuts and sauerkraut in the butcher's show case if his shop is open, or a bare case and hand lettered sign "Sorry, No Meat," if he is closed. Women lined up for blocks to await the 9 A.M. opening of a shop that advertised meat for sale. With an insufficient number of red points to supply their families with needed protein food, women are bidding up non-rationed chickens to fantastic heights. The \$1 a pound price in New York City markets at Easter time has been topped by a market in Washington where farmers were reported to have auctioned off live birds as high as \$9 each.

The OPA's ceiling price for farmers on young chickens, live weight, runs from 31c to 39c. The Rural New Yorker estimates that it costs the farmer for feed and labor about \$1.20 to \$1.39 to raise a bird to 16 weeks, when it should weigh between 3½ to 3¾ pounds. By doing a little mental arithmetic, even using the highest factors in each case, it will readily be seen that the OPA ceiling prices do not allow sufficient profit per bird to warrant a farmer's hard work and his taking the risk that he did last

(Continued on page 23)

Scientific and Technical Experts and Editors: F. J. Schlink, R. Joyce, M. C. Phillips, A. R. Greenleaf, and Charles L. Bernier. **Editorial Assistant:** Mary F. Roberts.

Symbols used to indicate sources of data and bases of ratings: A—recommended on basis of quality; AA—regarded as worthy of highest recommendation; B—intermediate with respect to quality; C—not recommended on basis of quality; CR—information from Consumers' Research's own tests or investigations; 1, 2, 3—relative prices, 1 being low, 3 high. Note that price and quality are completely differentiated in CR's listings; a quality judgment is independent of price. 44, 45—year in which test was made or information obtained or organized by the staff of Consumers' Research.

It will be advantageous if you will, whenever possible, send prompt notice of change of address at least a month before it is to take effect, accompanying your notice with statement of your old address with name in full. At least three weeks' notice must be given in any case. This rule, however, regarding long advance notice does not apply to military personnel.

CR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.

★ ★ For a brief cumulative index of 1945 BULLETINS preceding this issue, see page 24.

CONSUMERS' RESEARCH BULLETIN, issued monthly by Consumers' Research, Inc. Editorial and Publication Offices, Washington, N.J. Single copy 30c. Subscription price (12 issues) \$3 per year, U.S.A.; Canada and foreign, \$3.50. For libraries, schools, and colleges, a special subscription of nine monthly BULLETINS (October-June, inclusive) is available at \$2; Canada and foreign, \$2.50. Responsibility for all specific statements of fact or opinion at any time made by Consumers' Research lies wholly with the technical director and staff of the organization. Entered as second-class matter November 9, 1934, at the Post Office at Washington, N.J., under the Act of March 3, 1879; additional entry at Easton, Pa. Copyright, 1945, by Consumers' Research, Inc., Washington, N.J. • • • Printed in U.S.A. • • • CONSUMERS' RESEARCH BULLETIN is on file in many school, college, and public libraries and is indexed in Industrial Arts Index and in the Readers' Guide to Periodical Literature.

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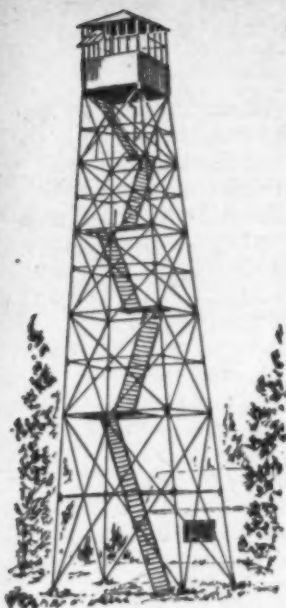
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The Consumers' Observation Post

T-BONE STEAK OR "MEAT BAR"? The time will come when the consumer can take his choice. The bar, a product of wartime research, will be made by Wilson & Co., Chicago packers, for civilians after V-Day. Four slabs, each about the size of a 5c candy bar, of this concentrated, dehydrated meat and fat will provide a husky eater with one entire day's supply of food. It is vacuum-packed to prevent rancidity. The product is said to resemble pemican, the dried and pounded meat used in earlier times as the emergency food supply of trappers and woodsmen.

* * *

HOME-CANNED PEARS, APPLES, AND QUINCES that turn pink or purple are nothing to be alarmed about unless the syrup is cloudy, according to a University of California report. When the syrup is clear, the color change is due to a chemical modification caused by the heat of processing. Cloudiness of syrup with change of color, and objectionable odor, however, indicate the presence of bacteria and yeasts that cause spoilage in canned fruit.

* * *

CLEANING WINDOWSHADES, even the non-washable kind, can be done at home, suggests the Cleanliness Bureau. First, make a "dry suds" by boiling one part of bar or packaged soap with five parts of water. For a small amount to start with, use 1/4 of a bar of laundry soap to 1-1/2 tumblersful of water. Let the resulting mass cool until it jells and whip with an egg beater until a dry lather is formed, with no liquid at the bottom of the bowl. Apply the dry suds to a small section of the shade with a soft cloth, a brush, or sponge. Rub lightly and wipe off suds. Wipe the area again with a cloth that has been moistened in clear, warm water and wrung almost dry, until suds and soil have been removed. Next wipe with a dry cloth. Continue until entire area has been cleaned, always overlapping applications of suds to avoid streaking. Turn and do other surface of shade in same manner. Then hang at window full-length until completely dry.

* * *

SPORT SHIRTS, those colorful items of weekend summer clothing, are moving from the regular shirt departments to the "utility" or work shirt classification, announces a clothing trade journal. It appears that recent clothing regulations issued by the OPA and WPB have omitted the "sport" shirt from the list of essential items for which high priorities on rayons have been issued—hence the quick change of nomenclature.

* * *

HOW TO STOP THE SALE of unrationed naphtha in Minnesota and some five other states is a problem that faced the OPA attorneys the latter part of March when a Federal judge in Minneapolis denied their petition for a temporary injunction to prohibit its sale. In pre-war days naphtha was frequently used as a solvent for home dry-cleaning, but when gas rationing was begun, the demand for naphtha ran far above normal. As we reported in October 1943, Wisconsin dealers were selling a considerable amount of it, all properly marked "Naphtha—Not to be Used for Motor Fuel."

* * *

LOOSE KITCHEN MATCHES of the strike-anywhere type that men are carrying in their pockets and ladies in their handbags are quite a fire hazard, warns the National Fire Protection Association. Book matches and safety matches in boxes are scarce now and often difficult to obtain, but the old-style matches are

freely available. In some industries the potential fire hazards are so great that employees are forbidden to carry loose matches in their pockets while in the plant.

* * *

AMMONIA NITROGEN, a substance present in the saliva, has been found to be inhibitive to the bacteria (particularly *L. acidophilus*) which cause tooth decay. "Small concentrations of ammonia formed more or less continuously on the vulnerable surfaces of the teeth may confer a natural protection against dental caries," report investigators Robert G. Kesel, Joseph F. O'Donnell, and Ernst R. Kirch, at the University of Illinois College of Dentistry. Several other researchers have found lower incidence of tooth decay when mouth rinses were used that contained related substances supplied artificially. The ammonia present seems to be derived from various amino acids in the protein foods, meat, fish, cheese, eggs consumed, by the action of the enzyme systems of the bacteria found in the mouth. People relatively immune to tooth decay were found to be able to convert at least 6 amino acids into ammonia nitrogen. In persons who do have tooth decay, there is usually an absence of the substances that will convert glutamic acid (one of the amino acids used by the body for neutralizing of toxic and harmful substances ingested in foods) to ammonia.

* * *

OVERCHLORINATION of city water has occasionally been reported to cause ill health. In one small city an epidemic of intestinal illness, similar to what is sometimes called intestinal influenza, was attributed to overchlorination of the water supply. Water that contained too much of a disinfectant or purifying element such as chlorine has also been considered to cause skin defects.

* * *

RATIONING OF MEN'S AND WOMEN'S CLOTHING was again rumored in the latter part of April. There appears, however, to be little likelihood that such a step will be taken, if for no other reason than that supplies are so short that there just isn't enough to divide up on a rationed basis. Furthermore the objections of civilians to regimentation are increasing to such an extent that public officials are reported to be hesitant about attempting to impose new restrictions.

* * *

CONSUMING THE CUSTOMARY AMOUNT OF MEAT in the summertime has been supposed undesirable. Many dietetic and nutrition experts have also favored reducing the consumption of high-protein foods where work was done in hot places or in tropical climates. Recent investigations indicate that this belief in the desirability of reduced meat consumption is not justified and that there is, for example, no reason for reducing the protein content of tropical military diets. Decreased heat production has been shown to be accomplished first by diminishing carbohydrates, next protein, and last of all, fats. The Journal of the American Medical Association, which discussed the problem, pointed out that the manufacturing processes which skim off the fat from by-product animal feed, not only lower the net energy value of the feed, but also decrease its nutritional value by causing an increase in the body's expenditure of calories in utilizing the food substances.

* * *

THE NATION-WIDE COLLECTION of aluminum pots and pans several years ago may have had some psychological or propaganda value, but it was a dud in so far as its contribution to the stock pile of aluminum was concerned. It now appears that there was such a large number of different mixtures and alloys of aluminum used in the cooking vessels that it was impracticable to sort and classify the vast quantity turned in. Most of the material, according to an item in a recent issue of Science, had to be melted down into low-grade metal. By a newly discovered chemical method, however, reports this journal, it is now possible to dissolve aluminum from war-weary planes, so as to eliminate sorting the metals before the aluminum is melted down. The application of this process is expected to effect considerable conservation of high-grade reserves of bauxite (aluminum ore) and mining manpower.

* * *

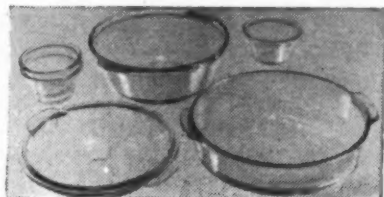
THE INCREASING USE OF SLEEPING PILLS is reported to be a cause of some concern to the Treasury's Narcotics Bureau and the Food and Drug Administration. War nerves, long and unaccustomed hours of work, and emotional tension have all taken their toll of sleep, and instead of learning to relax or making

(The continuation of this section is on page 29)

Glass Ovenware

GLASSMAKING was one of the first European industries to be established in America. The first glassmakers came to this country from Poland and Holland and founded a "glass house" in Jamestown, Virginia, in 1608. Still later, in the seventeenth century, glass beads were manufactured at Jamestown to be used as money in trade with the Indians. Unfortunately, the beads were manufactured so rapidly and in such quantities that their value quickly dropped to almost nothing.

In modern times, constant experimental work by skilled ceramists has succeeded in developing new types of glass for many different uses. During wartime, particularly, technical



Pyrex

and practical applications of glass have multiplied greatly, and glass has successfully taken the place of many items hitherto made of plastic or metal, such as handles, covers, floats for toilet flushtanks, even precision gauges for the checking of mass-production parts of machines and munitions. Glass ovenware has been for a decade or more a part of the normal

equipment of American kitchens.

Advantages of Glass

Glass has a number of qualities that make it a desirable material for ovenware. Glass, being non-porous, and free from the pits present in the surface of some metalware, does not absorb odors from food or greases. It is far more resistant than the metals and alloys to acid and alkaline food substances and does not, practically speaking, contribute metallic or other contamination to the food which is cooked in it. Because of its surface hardness and smoothness, a glass utensil is particularly easy to clean, soap and water being usually sufficient, with perhaps an occasional application of a mild abrasive or steel or other metal wool. A glass utensil, when difficult to clean, may be soaked in a solution of hot water and a little soda; if that doesn't work, wash with a little hot water containing two tablespoonfuls of vinegar.

Glass for kitchen use should be chosen with the smoothest possible surface and with well rounded corners to facilitate cleaning. It is wise to avoid any sort of decoration involving surface pattern or raised design, as such ornamentation may in some cases increase the difficulty of cleaning the ware.

One of the greatest advantages of glassware is that it can be used for cooking and serving and used thereafter with perfect safety as a container for storing the food in the refrigerator. This is especially important in the case of casseroles

and pie plates, which are said to be the utensils most often used in oven cookery. This is, of course, a time-saving feature in days when kitchen help is scarce and there are many extra



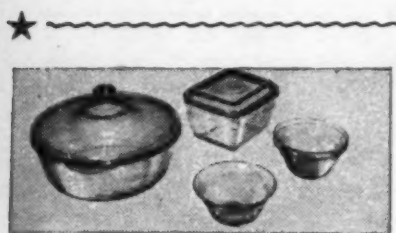
Flamex

demands upon the homemaker's time and effort.

Glass is an efficient material for oven use, and with oven cookery in general, foods cooked in glass, enameled ware, or chinaware require lower temperatures and shorter cooking periods than when cooked in aluminum or tin, according to a report of a state experiment station. Another study by Evelyn Roberts, at the State College of Washington, of the thermal properties of oven utensils showed that glass utensils were appreciably more efficient than some aluminum and stainless steel utensils and slightly more efficient than enamelware. (Chinaware and cast iron baking utensils were a little more efficient than glass, a cast iron Dutch oven giving the highest thermal performance.)

Cooking in the oven is chiefly done by radiant heat, a form of heat which glassware transmits readily. Utensils which have a strongly reflecting, shiny, or brightly polished surface are

least efficient, as they reflect the radiant heat away, back into the source, the hot walls of the oven. Glass is a relatively poor *conductor* of heat, so that it does not transmit heat well by contact with hot surfaces; but this quality of conducting heat poorly helps a utensil to retain heat once it has been warm.



Fire-King

★ ~~~~~

Data indicate that only small differences in thermal conductivity would be expected in the various types of glass used in ovenware. On the other hand, glass composition is important because minor changes may make great differences in the infra-red transmission, which accounts for most of the heat communicated to food in a cooking utensil in an oven.

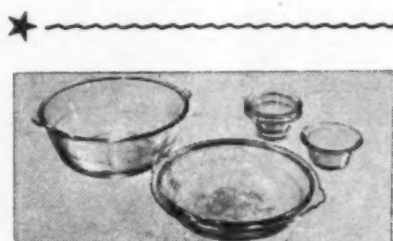
Disadvantages of Glass

Consumers do not need to be reminded of the fragility of glassware. It must be handled with care so as not to drop it or allow it to receive a sharp impact from another utensil or kitchen tool; it must not be set on a cold, wet surface, nor permitted to be spattered with cold water while it is hot. A glass dish or pan should be removed from the oven with a dry, not damp, pot holder to minimize danger of breakage and of burning or scalding the user. Some brands in test

showed better resistance to sudden temperature change than others, but as all makes will be relatively susceptible to mechanical and thermal shock, the homemaker should avoid subjecting her glassware to unnecessary strains or shocks.

CR's Tests

For the tests made by Consumers' Research, samples were purchased of four of the most widely sold brands of oven glassware. The pieces tested included baking trays, pie plates, custard cups, these pieces being considered representative of the ones most commonly used. At the same time, other specimens of the same brands were examined as to appearance—smoothness, brilliancy, freedom from bubbles and cloudiness. All pieces ex-



Glasbake

★ ~~~~~

amined were judged to have a satisfactory appearance, with the exception of a pie plate of the *Fire-King* brand which had a piece of white foreign matter in the side; this should not have been permitted to pass factory inspection. This plate, too, showed an unusually large number of "bubbles."

The tests made included the degree of resistance to chipping, to impact, to sudden temperature changes, and to per-

formance in baking, in a controlled-temperature oven. In the latter test, a standard ready-mixed corn meal muffin mix was used, and the baked products were examined for external characteristics (crust color and symmetry) and internal characteristics (crumb color and texture). The results of these tests are reported, but it is believed that oven glassware will not vary sufficiently, brand to brand, in quality of cooking performance to warrant the housewife's giving any considerable weight to that factor in deciding upon her selection of a brand.

B. Intermediate

Fire-King (Anchor Hocking Glass Corp., Lancaster, Ohio) One set (6 pieces), \$1. One set (10 pieces), \$1. Faintly blue glass, decorated (see text). Resistance to chipping, good. Resistance to impact and to sudden temperature changes, fair. Baking properties judged fair. 1

Flamex (Sears-Roebuck's Cat. No. 11-04944) One set (10 pieces), \$1.49, plus postage. Decorated (see text). Resistance to chipping, relatively poor (worst of those tested). Resistance to impact and to sudden temperature changes, good. Baking properties judged less satisfactory than other brands, but see comment on this point near end of preceding text. 1

Pyrex (Corning Glass Works, Corning, N. Y.) One set (12 pieces), \$2.45. Undecorated (smooth surface). Resistance to chipping, fair. Resistance to impact, good. This glass gave the poorest performance in the group in resistance to sudden temperature change. Baking properties judged good. 2

Less satisfactory than above three:

Glasbake (McKee Glass Co., Jeanette, Pa.) One set (12 pieces), \$2.07. Decorated. Resistance to chipping and to temperature changes, fair. This glass gave the poorest performance in the group in respect to mechanical impact. Baking properties judged fair. 2

Baked Beans--a meat substitute?

BAKED BEANS are a typically American dish. It is reported that when the first explorers reached America they found native tribes growing beans of many varieties, ranging in color from red to white. Early New England recipes describe the baking of the weekly pot of beans that went into the big brick oven along with the bread, both brown and white, to bake for twelve or fourteen hours. Gertrude I. Thomas in her delightful *Foods of Our Forefathers* gives a typical recipe that called for soaking the beans overnight, draining, and seasoning them with onion, mustard, and molasses and putting them in a bean pot with a pound of pork to a pound of beans. The beans were then covered with a little warm water and allowed to bake all day.

Eliza Acton's *Modern Cookery in All Its Branches*, an English cookbook revised by Mrs. S. J. Hale for American use in 1860, gives a recipe for pork and beans but remarks that it is "an economical dish; but it does not agree with weak stomachs." The lady's observations on this last point were sound and have been substantiated by later scientific studies. D. E. Bowman in a preliminary report of work in progress in 1943 noted that navy beans along with soy beans contain an oil that interferes with the digestibility of their soluble starch. Another factor may be the large amounts of hemicelluloses that they contain. As Dr. E. V. McCollum has pointed out, such substances are not digestible in the human alimentary tract, but are easily

fermented in the intestine and so tend to cause gas and flatulence, a symptom of indigestion with which beans have been traditionally associated.

It has been suggested that boiling beans with baking soda and then removing the hulls before further cooking may render them more digestible. It is particularly important to use soft water in cooking beans, for as Dr. E. H. S. Bailey and Herbert S. Bailey reported, when the lime of hard water forms insoluble compounds with the protein of beans, no amount of cooking will soften them.

The chief food constituents of beans are protein and carbohydrate, with about 1 percent oil. They also contain calcium, iron, and phosphorus. Dr. McCollum, in the *Newer Knowledge of Nutrition*, writes, "Beans have been called 'poor man's meat,' but modern studies have not lent support to this view." The protein of legumes, the class of food substances in which beans belong, are quite inferior to animal protein or meat. Most legumes lack three essential amino acids, isoleucine, threonine, and methionine. It is not possible therefore to make up for their deficiency by eating, say, twice as much of beans as of meat. The quality of bean protein, however, is greatly enhanced by the addition of fat as in fat pork so that the practice of the early settlers in combining a pound of pork and a pound of beans had a sound nutritional basis.

Since legumes require more work by the digestive tract than many other foods, baked beans

had best be consumed in limited amounts, particularly by sedentary workers. According to one authority, as much as one pound of cooked beans per day can be comfortably eaten by persons engaged in manual labor or exposed to severe weather, such as workers in lumber camps and mines. For those who work at less arduous tasks, however, the amounts should be considerably smaller, and the beans should be eaten along with a variety of other foods.

There are many types of dried beans available. The U. S. Department of Agriculture has recognized 21 classes by establishment of formal Federal grades. The one most commonly found on the market is the navy bean, also called pea bean. In addition to grades for the dry beans themselves, there are also U. S. Grades for canned dry beans which are prepared either by baking with dry heat or are steam-baked which is not baking, but steaming. In these days of gas and electric stoves and their high-priced fuel, it is hardly practicable and certainly not economical to cook a pot of beans for twelve to fourteen hours (although the job may be more speedily done in a pressure cooker or saucepan). The U. S. Standards for grades of canned dry beans provide for four styles of pack: in tomato sauce, consisting of tomato pulp, sugar, salt, and spices; in plain sauce, consisting of sugar, salt, spices, and molasses; in tomato sauce with pork; and in plain sauce with pork. The three grades are *U. S. Grade A (Fancy)*, *U. S. Grade C (Standard)*, and *Off-*

Grade (Substandard). The factors on which beans are rated are: consistency (the proportion of beans to sauce), absence of defects (loose skins, split, mashed, and discolored beans), tenderness, texture, and flavor.

Tests were made for CR by a firm of consulting chemists, skilled in the special field of grading canned foods, to determine the U.S. Grade of a number of brands of canned beans. The brands were purchased by CR in local stores and sent to the laboratory with the brand labels removed and only CR's coded identification symbol on the cans. Ratings are by CR and are cr45. Figures in parentheses are costs per pound of contents of the can.

A. Recommended

Ann Page Beans in Tomato Sauce with Pork (The Great Atlantic & Pacific Tea Co., 420 Lexington Ave., New York 17, New York) 1 lb. 2 oz.; one sample 9c, the other 10c (8.5c). Labeled in part "Pea Beans. . . with a sauce made from tomatoes, sugar, salt, dextrose, distilled vinegar, onions, garlic, spices and a piece of pork." Graded Fancy (U. S. Grade A).

Ann Page Beans Boston Style with Pork. 1 lb. 1½ oz., 10c (9.1c), packed in glass. Labeled in part "Sauce prepared from brown sugar, salt, dextrose, molasses, pepper and water." Graded Fancy (U. S. Grade A).

Ann Page Vegetarian Style Beans in Tomato Sauce Without Meat. 1 lb., 8c (8c). Labeled in part "Sauce prepared from tomatoes, sugar, salt, dextrose, distilled vinegar, coconut oil, onions, garlic, spices and water." Graded Fancy (U. S. Grade A).

Armour's Star Tasty Pork and Beans with Tomato Sauce (Distributed by Armour & Co., Union Stockyards, Chicago 9) 1 lb. 15 oz., 29c (15c). Labeled in part "Ingredients: Choice navy beans, water, tomato puree, sugar, selected pork, salt, starch, vinegar, spices and flavoring." Graded Fancy (U. S. Grade A).

B & M Baked Beans (Packed by Burnham & Morrill Co., Portland,

Maine) 1 lb. 2 oz., 15c (13.3c), packed in glass. Labeled in part "Baked in open pots. Ingredients: pea beans, pork, and sauce containing brown sugar, molasses, water, salt, spices." Graded Fancy (U. S. Grade A).

Friend's New England Brick Oven Baked Beans (Packed by Friend Brothers, Inc., Melrose Station, Boston) 1 lb., 11c (11c). Labeled in part "California pea with pork, sugar, molasses and spices." Graded Fancy (U. S. Grade A).

Heinz Oven Baked Beans in Tomato Sauce (Packed by H. J. Heinz Co., Pittsburgh) 1 lb. 2 oz., 14c (12.5c). Labeled in part "Without meat—vegetarian. Ingredients: beans, tomatoes, sugar, corn syrup, salt, baking soda, onions, spices, sufficient water to properly prepare." Graded Fancy (U. S. Grade A).

Hurff Beans with Pork in Tomato Sauce (Packed by Edgar F. Hurff Co., Swedesboro, N.J.) 1 lb. 1½ oz., 15c (13.7c), packed in glass. Labeled in part "Choice hand picked pea beans, tomato puree, flour, salt, sugar, spices, flavorings, vinegar, shortening, pork and sufficient water added to mix properly." Graded Fancy (U. S. Grade A).

Libby's Deep-Brown Beans (Packed by Libby, McNeill & Libby, Union Stockyards, Chicago 9) Vegetarian—in tomato sauce without meat. 14 oz., 11c (12.6c). Labeled in part "Variety, navy beans. Style, deep brown beans in tomato sauce without meat." Graded Fancy (U. S. Grade A).

Ritter White Label Beans with Pork in Tomato Sauce (Packed by P. J. Ritter Co., Bridgeton, N.J.) 1 lb. 1½ oz., 15c (13.7c), packed in glass. Carried shield of U.S. Inspection

Service indicating that it was packed under continuous inspection of the U. S. Department of Agriculture. Labeled in part "U. S. Grade A Fancy." Found to be Fancy (U. S. Grade A).

Van Camp's New England Style Beans (Packed by Van Camp's Inc., New Bedford, Mass.) 1 lb. 5½ oz., 14c (10.5c). Labeled in part "Small California pea beans with pork and molasses sauce." Graded Fancy (U. S. Grade A).

B. Intermediate

Alice of Old Vincennes New England Style Oven Baked Beans with Pork (Packed by Vincennes Packing Corp., Vincennes, Ind.) 1 lb. 5 oz., 12c (9.1c). Labeled in part "Sauce composed of a blend of sugars, molasses and spices." Graded Standard (U. S. Grade C).

American Beauty Pork & Beans in Tomato Sauce (Packed by Morgan Packing Co., Austin, Ind.) 1 lb. 1 oz., 15c (14.1c), packed in glass. Labeled in part "Contains beans, tomato puree, sugar, dextrose, pork, salt, onions, vinegar, spices, water." Graded Standard (U. S. Grade C).

Campbell's Pork and Beans with Tomato Sauce (Packed by Campbell Soup Co., Camden, N.J.) 1 lb., 10c (10c). Graded Standard (U. S. Grade C).

Gibbs Beans and Tomato Sauce (Packed by Gibbs & Co., Baltimore) 1 lb. ½ oz., 13c (12.6c). Graded Standard (U. S. Grade C).

C. Not Recommended

Van Camp's Improved Beans in Tomato Sauce (Distributed by Van Camp's, Inc.) 1 lb. 5 oz., 12c (9.1c). Graded Off Grade, Sour.

Liberty and

Governmental Power

"THE history of liberty is a history of the limitation of governmental power, not the increase of it. When we resist, therefore, the concentration of power, we are resisting the processes of

death, because a concentration of power is what always precedes the destruction of human liberties."—From an address of President Woodrow Wilson before the New York Press Club, 1912.

Summer Sunburn Preventives

By L. STAMBOVSKY

SUNBATHING in one form or another promises to be a most popular activity this summer. The country has emerged from one of the hardest winters in many years, and people are eagerly looking forward to enjoying the warm weather months. High-pressure production activities, long hours of work, nerve strain, worry, and tension have all taken their toll of vitality. It is obvious that in an effort to regain strength and vigor, a considerable part of the population will spend every available free minute in the open air. We may therefore expect an unparalleled wave of solar burns this summer.

While the sun is literally the fountainhead of all life, its energy must be treated with respect. The solar spectrum's capacity for beneficence is equalled by its potential destructive properties. Originally man spent all his time in mild and summer weather out of doors, with very little protective covering. Under these conditions, his skin became slowly and deeply pigmented, and so was protected from sunburn, but modern living has changed all this. The average city worker spends nearly all his time indoors or under a roof, and only one or two weeks outdoors each season; his skin, therefore, is quite unprepared to acquire a tan safely in the short time he has for continuous outdoor work or play.

Aside from pain, discomfort, and loss of time from work, actual damage to the skin may result from an overdose of sun. Eventually prolonged exposure may cause the skin to become scaly, inelastic, wrinkled, and old before its time. Outdoor workers such as fishermen, farmers, sailors, and others soon show alterations of a pathologic nature in the integument. The biologic and chemical basis for these changes is due to radical efforts on the part of the defense mechanisms of the skin to protect it against excess radiant energy, particularly that of actinic wave lengths. These defense processes consist principally of cornification (conversion into horny substance or tissue) and pigmentation and if they are excessively stimulated, the result is in some degree degenerative in character. Development of cancer is not only a sequel of an initial precancerous lesion, but it is also the result of continued trauma or injury to the skin whether such injury is mechanical, chemical, or photo-biologic.

The dermatologic alterations from excessive sun, even in their mildest stages, are preceded by and accompany loss of "skin tone" or attractive quality in the skin. The epidermis may become blotched and rough with enlarged pores, altogether an unattractive sight. It has been noted by the author that after severe burns, an inhibition or partial destruction of the proc-

esses that determine pigmentation takes place. This is evidenced by the failure of the skin to tan, not only the same summer in which the burn was acquired, but possibly for several succeeding summers.

Mild burns provoke a hot, drawn, uncomfortable feeling in the skin, which is dry and erythematous. These symptoms will disappear in about 24 to 36 hours, followed by deposition of variable amounts of pigment. Severe burns engender a high pain level of a peculiarly intolerable character, greatly augmented by the slightest movement of the body. Even contact with bedding or clothing is unbearable. The integument is parched and a vivid erythema (reddening) is present. Shock, chills, fever, nausea, very rapid heart beat, and a sense of impending dissolution may all be present. This aggregate of symptoms will persist more or less in its entirety for at least 36 hours, when the systemic poisoning and pain will begin to subside. A "hard" edema or swelling of the ankles, face, legs, and other parts of the body may then appear. One theory advanced for the cause of this edema is that it represents the liberation of the vasodilator, histamine, which is synthesized as a degradation product of the altered proteins of the epidermis. The familiar blister formation and desquamation or peeling of the skin are concluding symptoms.

Sunburn Preventives

Name	Average Percent Transmission. Light Source: Mercury Arc, Corex D Filter	
Dorothy Gray	7	} very good screening properties
Uvitan	7	
R. Hudnut Sun Oil	8	
Heliol (oil)	8	
H. H. Ayer Cream	9	
Norwich Sun Lotion	8	
Gaby	15	} good screening properties
Coty Lotion	15	
Noxzema Lotion	16	
Norwich Oil	35	} fair screening properties
Skol	35	
Noxzema Oil	37	
Squibb Lotion	45	
Nutan	45	
Rhoditan, DuPont	50	
Elizabeth Arden Lotion	50	

Countless remedies have been employed in the treatment of such injuries. The application of an effective anesthetic ointment is usually adequate. Cod-liver oil, carron oil, and ice cold compresses of mineral oil are also helpful. It is important that severe burns should receive medical attention.

Solar energy between the wave lengths of 2950 and 3150 Angstrom units is accountable for vitamin D formation, pigmentation, and actinic dermatitis or "sunburn." Spectral energy of the wave lengths 3342 and 3663 Angstrom units has also recently been found to possess pigment producing power; light of these wave lengths produces an immediate tanning effect, and is almost devoid of erythema producing properties. This would seem to be the ideal ultraviolet energy with which to tan. These frequencies, however, are only 1/80 and 1/144 as effective for a given time of exposure as the shorter wave lengths, 2950 to

3150 Angstrom units. Obviously impractically-long exposures would be required to obtain any worthwhile pigment-producing reaction to such wave lengths. This is substantiated by the well-known fact that it is almost impossible to tan by exposure to sunlight after it has passed through ordinary window glass, though the glass does transmit freely energy at wave lengths above 3300 Angstrom units. Window glass is to all intents and purposes completely impervious to light in the wave-length range between 2950 and 3150 Angstroms.

The three factors which govern skin reactions to biologically active ultraviolet light are: individual sensitivity, intensity of ultraviolet energy, and length of exposure. It is clearly evident that these are not constants but rather are variables which are subject to considerable change and fluctuation. Matthew Luckiesh, leading expert in the physiological effects of light, in his book *Artificial*

Sunlight, very thoroughly evaluated the response of average untanned skin to sunlight; the figures that follow are his;

Effects of June Sunlight at Noon on Average Untanned Skin

20 minutes...	Minimum Perceptible Erythema
50 minutes...	Vivid Erythema
100 minutes...	Painful Burn
200 minutes...	Blistering Burn

The word "erythema" means red. The first stage or "MPE," is that degree of reddening that is barely but definitely discernible. Vivid erythema is an intense fiery red; this marks the point at which there should be no further exposure. Further ultraviolet stimulation will result in skin irritation and pain.

All recommendations for safe exposures are based on the fact that the "vivid erythema" stage is the maximum non-injurious dosage. Blondes and red-heads may show excess sensitivity to solar energy amounting to 40 to 170%. In general, for the average person, 50 minutes, or "vivid erythema," is the maximum safe initial exposure. Those persons with supersensitive skins will have to be governed by their past experiences plus the Luckiesh data as a guide. At high altitudes, because of the absence of haze, smoke, and dust in the atmosphere, ultraviolet intensity is far in excess of that found at sea level. Under such conditions, safe initial exposures should be taken as about half of the limiting figures for other sections. The same is also true of exposure to sun on or near large bodies of water. The skin-burning rays reflected from the surface of water may augment the direct rays by 100%. It will be found that at two hours before or two hours after noon, the ultraviolet content of sun-

light is about one-third less than that in sunlight at noon. Time of exposure to radiation at such periods can therefore be substantially longer than at midday (suntime).

Most persons simply cannot or will not associate the warm, pleasurable sensations accompanying sunbathing, with potential danger. Since warnings relative to overexposure are frequently disregarded, the use of an efficient sunburn preventive will for many be the only sure way of avoiding solar burns. These preparations may be sold in the form of creams, oils, or lotions in which is dissolved a chemical substance acting as an ultraviolet screen or filter. Compounds used in the past

include tannic acid, esters of anthranilic acid, naphthol sulphonates, quinine and various derivatives, menthyl salicylate, and phenyl salicylate. These substances are being gradually abandoned, inasmuch as they are irritating to the skin, or are unstable or offer such feeble protection as to be of limited value.

In their earlier stages of development, sunburn preventives were not satisfactory. Those available at the present time show considerable improvement. An efficient sunburn preventive should not permit the passage of more than 25% of the skin-burning rays of the sun. Thus, with a superior sun-screen cream or lotion,

as one of those represented by the first group of six in the table, a person could be exposed for 4 hours or 240 minutes, and yet when protected by a product of the above efficiency, his skin would be subjected to only 25% of the total or 60 minutes' radiation as calculated on a skin-burning basis. This is slightly beyond the desirable limit, but the excess is not important as, in practice, body rotation and other factors prevent any single surface from receiving the entire theoretical exposure. The table on page 10 gives relative screening qualities (under artificial sunlight) of 16 of the better-known commercial sun-screening lotions or sunburn preventives.

Mildew-Proofing Agents

By C. A. TYLER, PH. D.

MANY who live in damp or seaboard climates, and particularly those who live in southern seaboard states, need to know what can be done to prevent incursions by mildew, which often causes much damage to clothing, luggage, shoes, and other costly household articles. Even paints present mold problems, and much study has been given to the possibility of improving the mold resistance of paints which must be used in specially damp locations or in places where thorough drying out between periods of wetting cannot be assured.

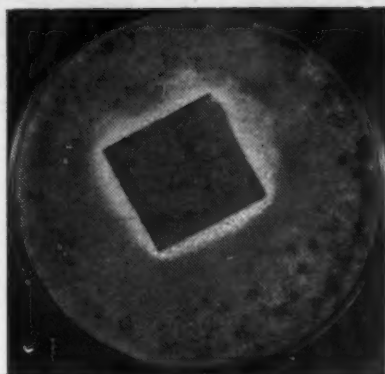
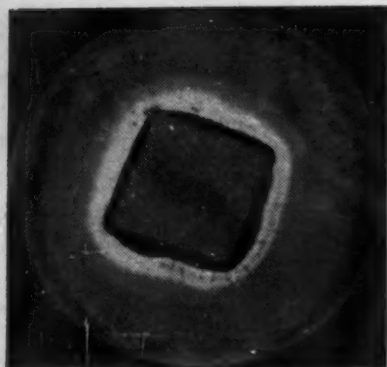
In the early stages of the blitzkrieg on London, sandbags were much used. It was soon realized that these had to be rot-proofed or mildew-proofed

to be of any lasting value. It also became evident that many sorts of fabric materials, including tents, sleeping bags, parachute cloth, mosquito netting, and even clothing, would have to be made both weather-resistant and mildew-proof if they were to have a worthwhile service life. When untreated tents and even shoes disintegrate in a week's time, as has been reported from certain combat areas in the South Pacific, the problem of maintaining supplies becomes an impossible one. Prevention of damage by mildew has become extremely important.

Mildew consists of a fungus growth, a form of plant life reproduced by minute bodies called spores, which exist almost everywhere except in very

cold dry regions. Moisture and heat promote growth of mildew, so that it is always a very serious problem in damp tropical and semitropical climates.

In this country the most common genus in the South is *Aspergillus*, usually black or dark brown in color, while more prevalent in the North are the genera *Penicillium*, usually green or brown, and *Mucorales*, usually white. Mildew will grow on most organic matter originating in plant and animal life, including cellulose in the form of cotton fabric and even wood, starch as in paper sizing, and protein as in leather goods. Moist fungi produce enzymes which can break down cellulose into simple materials that are soluble in water and can be washed away by rain or per-



The photograph at the left shows satisfactory mold resistance. The photograph at the right shows lack of effectiveness in a mold resistance treatment.

colating moisture, processes of great practical significance as observed in the weakening and rotting of cotton fabrics and articles of wood.

Molds give various discolorations—some of the common forms give greenish, some brownish, some reddish, some yellowish stains or discolorations on material on which they grow. Scores of substances are now available that have some mildew-proofing effect, but the problem involves many practical difficulties, since it is important that in controlling the mildew one does not do some damage to the fabric or other material or bring about discoloration or other undesirable effect. Deeply grown mildew is said to be almost impossible to remove from either washable or non-washable materials.

The characteristic musty odor of moldy material is usually the first sign of infection with mildew. Following this, the characteristic colored spots appear due to the growth of thread-like hyphae from the germinating spores.

Accelerated methods of test are very widely used for judging mildew resistance of treated fabrics. One of these employs immersion for several

weeks in soil which is rich in the forms of microbial life which decompose cellulose—a compost containing horse manure and sandy loam field soil properly layered and turned over a period of 12 months; or a soil compost may be used which has been obtained from a local greenhouse or garden. The soil is maintained at approximately constant temperature during the test. Results are judged by the loss of breaking strength of the treated material as compared with “controls” (specimens of the same sort, untreated) which have been subjected to the same mold exposure. Untreated cotton osnaburg should lose 90% or more of its original breaking strength after burial for one week.

The dweller in damp climates will probably find that his best protection against mildew will be the keeping of the house as dry and as well aired as possible, and ventilated at all times. The house should be aired, particularly on cool evenings and at any time when the air outside seems drier (lower relative humidity) than the air inside. A closet or other space which cannot be reached by ordinary ventilation should be specially aired by blowing an elec-

tric fan, set outside the door, into it. It will help to keep closet doors ajar and drawers holding clothes, linens, leather goods, etc., open a small distance to help maintain some degree of air circulation. Anything which warms the air in a closed closet or storage space some degrees above the surrounding atmosphere will tend to reduce relative humidity and improve air circulation. Under some circumstances, this can be done conveniently with a small electric lamp, but in any such case it is vitally necessary, of course, that the wiring to the lamp be of a strictly safe type to prevent fire hazard, and that there be no possibility of the lamp's touching or coming very close to combustible materials, with risk of setting a fire by direct contact with highly flammable fabrics or other burnable materials. (Electric lamps can cause direct ignition of fabrics in some cases, and even a very low-wattage lamp may involve a definite fire hazard and of course risk of other injury to a valuable fabric.)

Because of urgent military needs much work has been done to find effective fungus-killing substances (fungicides) which could be readily applied as finishing agents during the processing of textile materials. The ideal mildew-proofing compound should be inexpensive, long-lasting, relatively easy to apply, should not harm the fabric, should withstand laundering, and should be colorless, odorless, and free from toxicity to human beings and to animals. Hundreds of chemicals have been investigated; a few have reached commercial production.

Commercial Products

Commercial fungicides are

produced by some of the large chemical companies for use by textile manufacturers; in using these, the textile material is immersed in a bath of the agent in solution, usually with agitation to insure complete impregnation. The du Pont Company, for example, makes a product sold under the name of *Shirlan A*, which contains salicylanilide as the active fungicidal ingredient. For fabrics such as awnings, tents, and sailcloth, which are subjected to rain and severe weathering, they recommend a combination of mildew-proofing and water-resistant agents, applied in the same bath. From 0.1% to 0.4% of *Shirlan A* is used with 2.5% to 5% of the waterproofing agent, *Aridex WP*—depending on the degree of resistance required. The fabric should be dried at as high a temperature as possible.

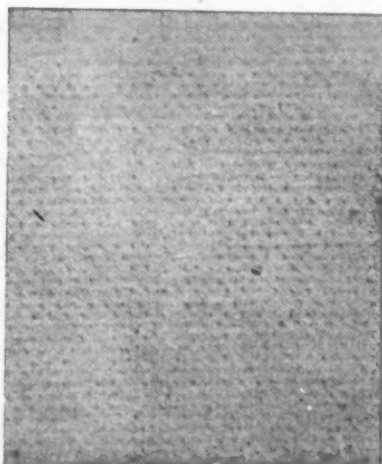
Margaret S. Furry and Helen M. Robinson of the U. S. Bureau of Home Economics, working with Harry Humfeld¹ of the U.S. Bureau of Plant Industry investigated the fungicidal activity of some hundred odd compounds. They immersed unbleached cotton duck in the various solutions and used a standard procedure for testing fungicidal effectiveness. The mildew resistance of the treated fabric was measured by its loss in breaking strength after inoculation and incubation with the test organism *Chaetomium globosum*. Salicylanilide, at a concentration of about 0.2% and an immersion temperature of 77°F to 86°F for 30 minutes, is effective unless the fabric is later steam-sterilized. If the fabric is sterilized with steam, the salicylanilide is lost and the treatment is not effective. When

this agent is used in conjunction with a 3% wax and aluminum acetate emulsion, the fabric is made water-resistant and mildew-proofed, even when subjected to steam sterilization. The aluminum acetate and wax provide water-resistance and help fix the salicylanilide on the fabric. Although such fabrics are slightly stiff and turn faintly pink, this agent has been recommended by a number of investigators. Where resistance to weathering is not important, and where the fabric does not need to be subjected to sterilization, salicylanilide may be used alone with good results. This chemical is non-toxic and non-irritating to the skin.

A group of products known as the *Dowicides* made by the Dow Chemical Co. (Midland, Mich.), are derivatives of phenol or carbolic acid. *Dowicide 1*, which is *ortho*-phenyl phenol, is soluble in a number of vegetable oils such as castor oil and pine oil, and organic solvents such as acetone and carbon tetrachloride, as well as in mineral oil. It finds use in

casein paints, leather finishes, and on textiles. Furry, Robinson, and Humfeld found a 3% solution of *ortho*-phenyl phenol in Stoddard solvent—dry-cleaners' solvent—applied at 77°F to 86°F for 30 minutes, to give complete proofing against mildew, even after steam sterilization. *Dowicide 3*, or chloro-*ortho*-phenyl phenol gave complete protection when applied similarly in the well-known and inexpensive petroleum fraction, Stoddard solvent. *Dowicide G*, sodium pentachlorophenolate, also sold, under the name of *Santobrite*, by Monsanto Chemical Co. (St. Louis), applied as a 2% aqueous solution under similar conditions, also gave complete protection against the test fungus. On a basis of price per pound this is one of the most economical treatments. The sodium salt of the corresponding free phenol product is *Santophen 20*. The *Dowicides* have some irritant action on the skin and so would not be suitable for use on clothing.

Another phenol derivative called *Moldol*, which is *para*-



Another picture showing the difference between a mold resistant fabric (at left) and (at the right) an untreated fabric—8-oz. duck—heavily attacked by molds after months in a humidity chamber. Photograph by Courtesy of Dow Chemical Company

¹ Ind. Eng. Chem. 33, 538-45 (1941)

Bath I				Bath II			
Chemical	Conc. % in Water	Bath Temp. °F	Time in Minutes	Chemical	Conc. % in Water	Bath Temp. °F	Time in Minutes
Sodium oleate soap	0.5	212	10	Cadmium chloride	1.0	212	30
Cadmium chloride	2.3	77-86	30	Borax	4.0	77-86	10
Zinc naphthenate emulsion	5.0	77-86	30	No second bath required			

chloro-*meta*-cresol, is sold by Pfalz and Bauer, Inc. (New York City). This is intended more as an addition to sizing agents than for separate impregnation of fabrics.

A more complex compound, 2,2'-dihydroxy-5,5'-dichloro diphenyl methane, is sold by the General Dyestuff Corp. (N.Y.C.) under the name of *Preventol GD*. Givaudan-Delawanna, Inc. (N.Y.C.) sell this material as *Compound G-4*. This substance has been found to be non-toxic and non-irritant, by experiments with animals and patch tests on human beings. As used for large-scale textile application, 8 lb. 5 oz. of *Preventol GD* and 1 lb. 8 oz. of caustic soda flakes are dissolved in 5 gal. of water. This is diluted to 100 gal. with water for immersion of the fabric. The treated cloth must be passed through a second bath containing 5% of acetic acid. Drying in between is unnecessary. The acid precipitates the fungicidal material on the fiber.

A series of mildew-proofing agents, called *Puratized*, are also sold by the General Dyestuff Corp. These are complex organic mercury compounds. Two water-soluble compounds, *Puratized N5-D* and *Puratized N5-X*, are applied in solution and set by drying the treated fabric at high temperatures, preferably above 160°F. Another form, *Puratized LN*, is

applied in solution in Stoddard solvent. While mercury compounds are relatively expensive, these particular ones are used in such low concentrations that they become economical as compared with some fungicides. The *LN* compound is effective when 0.1% is left as a residue on the fabric; that is, when the fabric takes up 1/10 of 1% of its weight of the compound.

Furry, Robinson, and Humfeld found that phenyl mercury oleate gave mildew protection when applied at a concentration of 0.8% in water at 77°F to 86°F for 30 minutes. Another form of the same compound but dispersed in Stoddard solvent, gave good protection when applied under similar conditions. The *Puratize* compounds are believed similar but not identical. A source of the phenyl mercuric compounds is Gallowhur Chemical Co., 250 E. 43 St., New York 17, or F. W. Berk & Co., Inc., 420 Lexington Ave., N.Y.C. These substances are reported to be skin irritants in concentrated form in solution but non-irritant after proper application.

Another product sold as a germicide and industrial preservative by the Monsanto Chemical Co., is called *Santophen 7*. It is a mixture of *ortho*- and *para*-benzyl phenols, and is an effective fungicide in concentrations of 0.1% and less. The product is insoluble in wa-

ter but may be solubilized with the aid of sulfonated castor oil as follows:

Santophen 7 10 parts by weight
Sulfonated
castor oil 25 parts by weight
Ethyl alcohol 5-10 parts by weight
Water to make . . . 100 parts

In concentrated solution *Santophen 7* is irritating to the skin. It is therefore not suitable for prolonged contact with the skin.

Other Mildew-Proofing Agents

Furry, Robinson, and Humfeld found some 35 treatments which gave excellent protection against mildew growth, but a number of these are not suitable for use in the home, including copper naphthenate, a substance much used for rot-proofing of sandbags and similar utilitarian materials; this compound gives the fabric a dirty green color. A few of those on their list not already mentioned are tabulated with method of use, above.

The first two methods require a two-bath treatment, the third only one bath. These solutions are colorless and safe to use. The fabric has to be boiled in the first method, but only warm water is required in the other two. Sodium oleate is a commercial soap of high solubility. This material is sold by Proctor & Gamble as *Olate* soap. The other chemicals except zinc naphthenate are fairly com-

mon, obtainable at any chemical supply house.

The best known commercial product for consumers' use in treatment against mildew is *Mil-Du-Rid*, marketed by the Interchemical Corporation, Fair Lawn, N. J., and sold through household supply and specialty stores (the full name appears to be *Selfast Mil-Du-Rid*), and advertising claims of one large dealer assert "An end to mildew which is destructive! Prevent mildew and household mold in your home. . . use *Mil-Du-Rid* on luggage, shoes, books, clothing, laundry, rugs, furniture, in closets and basements. It is harmless, and easily used with positive results. *Mil-Du-Rid* will protect contents of your summer home when closed, and your winter home during the summer. Spray everything with *Mil-Du-Rid* and there'll be no musty smells, no mold, no mildew."

Mil-Du-Rid is priced at 95c a pint; \$1.59 a quart. Its directions are unfortunately printed in such small type, at least on the pint bottle, as to be very difficult to read, and this is particularly unfortunate in view of the fact that they are long and evidently such that they should be followed closely. For mildew-proofing of slip covers, rugs, woolens, cottons, shower curtains, walls, closets, and furniture, the directions call for adding 3 tablespoons of the product to a quart of water. The usual method of application is with a spray, although it may be wiped, brushed, or mopped on woodwork. (For leather, a much stronger solution is used as the proportion is 1 part of *Mil-Du-Rid* with 2 parts of water applied generously by means of a brush or cotton wadding. For shoe uppers, one part to

one part water.)

The fine print on the label includes advice that *Mil-Du-Rid* "should not be applied to plants or animals"; that wearing apparel treated with it should be allowed to dry overnight before use; it should not be used on fabrics that have been rubberized or chemically waterproofed. The colors of some leathers may be slightly affected. The label, also in very fine print, specifically provided that "no guarantee, express or implied, is made as to the effects of such use, whether or not in accordance with these directions or claimed so to be."

A sample of the product on being subjected to preliminary analysis was found to be alkaline and to contain isopropanol. It is believed to be a concentrated solution in isopropanol and probably some water, of a sodium salt of a chlorinated synthetic organic antiseptic, similar to one of the Dowicides, *Moldol* of Pfaltz & Bauer Inc., *Compound G-4* of Givaudan Delawanna, Inc., or *Preventol GD* (General Dyestuff Corporation) all of which are chlorohydroxy organic compounds used as mold and mildew-proofing agents.

Conclusions

While the commercial mildew-proofing agents are now absorbed by Army and Navy requirements, post-war they will no doubt be applied to civilian materials, with a consequent saving of many household supplies. Paints and lacquers (which under severe conditions of exposure often give trouble with mildew growth), as well as several types of fabrics, will probably be mildew-proofed, in addition to numerous special items for tropical use, and items used in warm

coastal regions, where mildewing of clothing, shoes, and of many household articles presents a serious practical problem to millions of consumers.

Moisture absorbing materials are being widely sold in cardboard canisters under various names, such as *Moisture Magnet*, in hardware, department, and house-furnishing stores. They are claimed to protect clothes from mildewing, and work by absorbing part of the moisture from the air in a confined space such as a clothes closet. These products seem to be just the old-fashioned chemical, calcium chloride, well known for moisture absorbing properties, and their capacity to absorb moisture from air is extremely limited, much less so than the high price of 59c for approximately 25 cubic inches of the material would warrant.

One product tested consisted of approximately 60% siliceous material similar to fine sand or quartz, and 40% of partially hydrated calcium chloride. If strictly free from moisture as sold, the product would be able to absorb approximately 40% of its weight of water. To restore to its original absorbent condition, it would be necessary to heat the product to 392°F, though a considerable percentage of the moisture would go off at 230°F.

The use of such a material for delaying the frosting of the refrigerator coils as its maker recommends seems a wholly impractical idea, since the whole amount of moisture which the specimen tested would absorb would be no more than a small fraction of the total amount of ice deposited on the freezing chamber of an ordinary household size refrigerator before defrosting would normally be carried out.

What Film Shall I Use?

THE great majority of amateur photographers are probably interested chiefly or only in what may be called pictorial photography; that is, making pictures of scenes, people or objects which interest them, in such a manner that the results appear to the photographers themselves at least, as reasonably accurate or pleasing representations of the subjects.

Special purposes for which photography is used, such as copying, photographing various objects for making halftone printing plates as in advertising, medical photography, astronomical photography, photomicrography, photospectroscopy, and the like, each call for a different technique, and usually different materials, from those employed by the amateur picture-taker.

Today, the amateur is fortunate to secure any passably good film in the wanted size and form; nevertheless it is often necessary to decide between brands or types of one brand. When the film situation improves further, users will be confronted with a variety of films made by at least four manufacturers (Ansco, Defender, Eastman, and Gevaert) and may be at a loss to decide which one to use for the purpose in mind. Technical data in the form of characteristic curves which show the relationship between exposure and the resulting density on the emulsion, and wedge spectrograms which show the relative sensitivity of the emulsion to light of different colors, are of little use to the average amateur, who has

no special facility with graphs, nor experience which would enable him to estimate the effect in monochrome which will be produced by exposure of the emulsion to light of the different colors which he wishes to photograph. Actually the "problem" of choosing a suitable film, though it looks difficult if one looks too closely at the complex data available on various types of film, is not a serious one.

Basic Types of Emulsions

The earliest emulsions were the color-blind or "ordinary" type which were sensitive only to the blue and violet sections of the visible spectrum and to the invisible ultra-violet and shorter wave-lengths. Such emulsions are seldom used today for pictorial photography but do have their uses for certain kinds of commercial work, for making prints from motion picture negatives, for X-ray work and for other special purposes for which color sensitivity is unnecessary. Color-blind emulsions can be developed safely in a relatively bright yellow light. There are few occasions when the amateur will find use for these emulsions; practically, he would use them only when it is desired to emphasize the effect of mist, to take pictures of objects of neutral color or whose color tones are of no particular importance. Such films may also be used to record only forms and masses, as in the case of silhouettes, pictures made at or after sunset, etc. Use of a suitable blue filter with an orthochromatic or panchromatic emulsion will produce the same effect, al-

though at the expense of some speed, since a blue filter absorbs some blue light as well as the light of other colors. Color-blind film is supplied as motion picture positive film and as sheet film under the designations "commercial" and "process."

Emulsions which are sensitive to light of wave-lengths closer to the red end of the spectrum, including green and yellow-green are known as "*orthochromatic*," an unfortunate designation because the word implies ability to produce a monochromatic record of all colors in the same relative brightnesses as they appear to the human eye. Although these emulsions do not record the spectral colors in the region from yellow to red inclusive, they are a great improvement over "ordinary" or process film because their sensitivity to green, to which the eye has maximum sensitivity, permits a far more agreeable rendering of many subjects than is possible with a color-blind emulsion.

Because orthochromatic emulsions still have excessive sensitivity to the blue and violet as well as to the invisible ultra-violet, a yellow filter is often used to remove the ultra-violet and to reduce the intensity of blue light reaching the emulsion; this produces a much more natural result, helps to put clouds into landscapes, for example, by differentiating between white clouds and blue sky. Amateurs find that many landscapes taken on orthochromatic films or plates are very satisfactory. Likewise, some

portrait photographers prefer orthochromatic material, especially for portraits of men because its lack of sensitivity to yellow and red results in darker tones in the face and hands, giving a "virile" or "sun-tanned" effect. This material is also satisfactory for portraits of dark-haired women, but yellow or red hair also comes out dark.

Orthochromatic emulsions can be developed under a red safe-light, but this point is of little value since only a slight possibility exists of correcting errors in exposure by modifying the process of development. Orthochromatic films are made in various speeds by all the well-known manufacturers, and differ slightly in color sensitivity; however, these differences are so small that any such film can be used as a substitute for any other, with due allowance being made, of course, for its speed, when exposing, and proper following of the manufacturer's instructions for development.

So-Called Panchromatic Emulsions

The first **panchromatic** emulsions, sensitized to all the colors of the visible spectrum, still retained an excessive sensitivity to the blue and violet, and the undesired sensitivity to ultra-violet (the invisible deep violet rays). These emulsions were slow and tended to give greater contrast than is generally desirable. Nevertheless they represented a great improvement over orthochromatic emulsions, and when used with suitable correcting filters, recorded the various colors in tones of monochrome in a way that approximated the sensitivity curve of the eye. This is known as an orthochromatic



The illustration shows colored covers of CR's Bulletins (colors, reading from left to right: Purplish-Blue [similar to violet but not a true violet], Blue, Light Green, Medium Yellow, Orange, and Red) photographed by daylight on three different types of sheet film: Ad, at Top, Orthochromatic-Type A; Bd, at Center, Orthopanchromatic-Type B; Cd, at Bottom, Hyperpanchromatic-Type C.

The orthochromatic film not being sensitive to colors at the red end of the spectrum is seen not to distinguish between orange and red; it has reproduced them as though they were almost black. Orthopanchromatic film (Type B) gave the most nearly correct rendition of relative brightness of the colors. The hyperpanchromatic film overcorrected the colors at the red end of the spectrum—rendered them in too light a tone. (This would be more pronounced if taken under artificial light.) Any who may wish to compare the above illustration with the actual covers of the Bulletins photographed may refer to the following Bulletins: May '44, June '43, April '44, November '43, January '44, March '43.

rendering of the subject and the correcting filters are known as orthochromatic filters; this is the correct use of the term "orthochromatic." A panchromatic emulsion *can* therefore produce orthochromatic rendering, while a so-called orthochromatic emulsion cannot do so.

The modern types of panchromatic emulsions came into general use early in the 1930's. Although each make of film with this type of emulsion differs from all others in the distribution of color sensitivity up and down the scale from ultra-violet to red, it is convenient to classify these emulsions into two groups, the **orthopanchromatic** (called *Type B* by Eastman), and the **hyperpanchromatic** (called *Type C* by Eastman). There are also special-purpose emulsions, sensitized for particular portions of the spectrum as required for the special technical, scientific, military, or other purposes for which they are intended; they have no place in pictorial photography.

Orthopanchromatic materials have a relative color sensitivity approaching that of the human eye and when used with suitable filters (which require only moderate increase in exposure) give practically full correction. Many users consider them satisfactory without filters. They are the most generally useful emulsions for the average amateur photographer for outdoor photography, whether it be landscapes, genre (scenes from everyday life), or architectural.

Panchromatic emulsions are satisfactory for portraiture of women with blonde hair, which is rendered in good tonal value. On the other hand, with the exception of the special por-



Table I

35 mm.	Roll	Film Pack	Sheet Film
b Ansco Superpan Supreme b Eastman Kodak Plus-X Panchromatic b Eastman Kodak Super-XX Panchromatic	b Ansco Superpan Supreme b Eastman Kodak Plus-X Panchromatic	b Ansco Superpan Supreme b Eastman Kodak Plus-X Panchromatic	b Ansco Triple S Pan b Eastman Kodak Portrait Panchromatic b Eastman Kodak Super Panchro-Press Type B
b Ansco Finopan b Eastman Kodak Panatomic-X	b Ansco Finopan		b Ansco Isopan b Defender Fine Grain Panchromatic b Defender X-F Panchromatic b Eastman Kodak Super-XX Panchromatic
c Ansco Ultra-Speed Pan	c Eastman Kodak Super-XX Panchromatic	c Eastman Kodak Super-XX Panchromatic	c Defender Arrow Panchromatic c Eastman Kodak Tri-X Panchromatic
	c Ansco Superpan Press a Ansco Plenachrome a Eastman Kodak Verichrome	c Ansco Superpan Press a Ansco Super Plenachrome a Eastman Kodak Verichrome a Eastman Kodak Super Ortho-Press	c Ansco Superpan Press a Ansco Triple S Ortho a Defender X-F Orthochromatic a Eastman Kodak Super Speed Ortho Portrait a Eastman Kodak Super Ortho-Press a Eastman Kodak Ortho-X

Color Sensitivity: a—orthochromatic; b—orthopanchromatic; c—hyperpanchromatic.

trait panchromatic emulsions with reduced red response, they tend to "wash out" the color of the face, especially the red of cheeks and lips. This may be corrected by the use of a suitable filter, but because that requires increased exposure, it is customary to correct by use of "panchromatic make-up." The orthochromatic filters used for orthopanchromatic emulsions are a medium yellow, such as the *Wratten K2*, for daylight, and a pale green, such as the *Wratten X1*, for tungsten light.

Kodak Super Panchro-Press Type B and *Ansco Triple S Pan* "sheet" film are rapid ortho-

panchromatic films which have an excellent combination of tonal range and chromatic balance. *Kodak Portrait Panchromatic* sheet film is a slower film of equal quality. Other orthopanchromatic sheet films are *Kodak Super-XX Panchromatic*, *Ansco Isopan*, *Defender X-F Pan*, and *Defender Fine Grain Pan*.

In roll films, film pack and 35 mm. perforated film, first choice in rapid films would be *Ansco Superpan Supreme* and *Kodak Plus-X Panchromatic*; slower films are *Kodak Panatomic-X* (now listed in 35 mm. perforated only) and *Ansco Finopan* (roll film and 35 mm.

only). The faster *Kodak Super-XX Panchromatic* film in the 35 mm. size may be used instead of the other 35 mm. films mentioned. (Note that *Super-XX Panchromatic* in roll film and film pack has a hyperpanchromatic emulsion.)

Special Red-Sensitive Emulsions

A *hyperpanchromatic* emulsion is one which has been given a high sensitivity to red in order to increase its effective speed, especially in artificial light, which is relatively rich in red. Such an emulsion is particularly adapted to press photography and similar uses

Table II—Classification of Film Emulsions in Relation to Their Use by the Expert Amateur Photographer

EASTMAN

<i>Use</i>	<i>Roll</i>	<i>Weston Speed</i>	<i>Film Pack</i>	<i>Weston Speed</i>	<i>Sheet Film</i>	<i>Weston Speed</i>
Portraiture	a Verichrome	50	a Verichrome	50	a Super Speed Ortho Portrait	40
	b Plus-X	50	a Super Ortho-Press	80	a Ortho-X	100
	c Super-XX	80	b Plus-X	50	b Portrait Panchromatic	40
			c Super-XX	80	b Super Panchro-Press Type B	100
					b Super-XX	80
					c Tri-X Panchromatic	160
Landscapes	a Verichrome	50	a Verichrome	50	a Super Speed Ortho Portrait	40
	b Plus-X	50	a Super Ortho-Press	80	b Portrait Panchromatic	40
			b Plus-X	50	b Super Panchro-Press Type B	100
Action	c Super-XX	80	c Super-XX	80	a Super Ortho-Press	80
					a Ortho-X	100
					b Super Panchro-Press Type B	100
					c Tri-X Panchromatic	160
Record Photography Best Gradation	b Plus-X	50	b Plus-X	50	b Super Panchro-Press Type B	100
High Contrast	c Super-XX	80	c Super-XX	80	b Super Panchro-Press Type B	100
Indoor (Still Life, etc.)	b Plus-X	50	b Plus-X	50	b Portrait Panchromatic	40
					b Super Panchro-Press Type B	100

ANSCO

Portraiture	a Plenachrome	50	a Super Plenachrome	50	a Triple S Ortho	100
	b Superpan Supreme	50	b Superpan Supreme	50	b Triple S Pan	100
					c Superpan Press	100
Landscapes	a Plenachrome	50	a Super Plenachrome	50	a Triple S Ortho	100
	b Superpan Supreme	50	b Superpan Supreme	50	b Triple S Pan	100
	c Superpan Press	100	c Superpan Press	100	c Superpan Press	100
	b Finopan	24			b Isopan	50
Action	b Superpan Supreme	50	b Superpan Supreme	50	a Triple S Ortho	100
	c Superpan Press	100	c Superpan Press	100	b Triple S Pan	100
					c Superpan Press	100
Record Photography Best Gradation	b Superpan Supreme	50	b Superpan Supreme	50	b Triple S Pan	100
High Contrast	b Finopan	24	c Superpan Press	100	c Superpan Press	100
Indoor (Still Life, etc.)	b Superpan Supreme	50	b Superpan Supreme	50	b Triple S Pan	100
					b Isopan	50

{ Type of color sensitization: a—orthochromatic; b—orthopanchromatic; c—hyperpanchromatic.
 { The order of the films listed in the above table is not significant, and does not represent an order of desirability.

for which maximum speed is required in photography calling for the use of artificial light. Used without a filter it overcorrects for red and distorts the color balance by making red objects appear too light. Orthochromatic rendering can be obtained by the use of a light green filter, such as the *Wratten X1*, in daylight, or of a somewhat deeper green, such as the *Wratten X2*, in tungsten light, but an emulsion of this type usually has a less favorable tonal scale than does an orthopanchromatic emulsion, and its use for pictorial photography is to be recommended only when no orthopanchromatic emulsion is available.

Of the hyperpanchromatic films *Anso Superpan Press* is made in sheet, roll and film pack, and *Anso Ultra-Speed Pan* is made in 35 mm. perforated. *Kodak Tri-X Panchromatic* is made in sheet film, and *Kodak Super-XX Panchromatic* in roll and film pack. *Defender Arrow* is made in sheet film.

Infra-red film is sensitive only to ultra-violet, violet, blue and infra-red radiation; it is used with a red filter which absorbs all except the infra-red. It is used in certain circumstances for photographing distant landscapes because of its effect in nullifying atmospheric haze. Many other uses are found in medical, technical and scientific photography. For the pictorial photographer, however, its use is restricted to the securing of bizarre or dramatic effects. Eastman Kodak Company and Anso each make a film of this type in sheet and 35 mm. roll.

The Problem of Grain-Size

The importance of fine-grain emulsions and of fine-grain

processing has been exaggerated. Graininess in an enlargement is unpleasant, but can be minimized by enlarging on a rough surfaced paper or by introducing slight diffusion during the enlarging exposure. Enlargements of high magnification are not critically sharp (unless the negative has been made on a special high-resolving emulsion not suited to amateur photography), and the additional impairment of definition produced by the slight diffusion required to obscure the appearance of graininess is of little consequence.

If a fine-grain film is unobtainable, substitution of one of coarser grain structure imposes no real hardship. Fine-grain films are slower and usually have a somewhat shorter tonal scale than do the coarser grained varieties. The best known fine-grain films are *Kodak Panatomic-X* and *Anso Finopan*.

Emulsion Speed

Many amateurs attach undue importance to the matter of emulsion speed; except where necessary in unusual circumstances in order to permit minimum exposure, or under very poor lighting conditions, extreme speed is of no advantage.

The only precautions necessary in changing from a fast film to a slow film of the same approximate chromatic balance are to adjust exposure and developing time to conform to the requirements of the film. In general, the faster films require a longer time of development than do the slower ones, to reach the same degree of contrast.

Good Advice for the Amateur on Selection of Emulsion Types

The idea that one must

choose exactly the right film for a particular purpose has little merit except to enable manufacturers to sell more film. The amateur will do well to stick to one or, at most, two films for all his work, and to become fully conversant, by repeated use, with their capabilities and limitations. Because the chromatic sensitivity of orthopanchromatic emulsions most closely approximates that of the human eye, these emulsions in general represent the preferable type for all ordinary uses. If another type is needed, it should be a hyperpanchromatic emulsion for press, and other work requiring the maximum use of speed. A possible exception, as previously noted, is the use of orthochromatic emulsions for portraiture of men.

With the advent of the extremely fast orthopanchromatic materials like the *Super Panthro-Press Sports Type* just announced by Eastman Kodak Company, there would seem to be no further reason for the production and sale of hyperpanchromatic films.

The orthopanchromatic film which is best for landscapes is also best for table tops, for genre, for record photographs of farm machinery, architectural subjects, prize dogs or cattle, snapshots of friends, or about any subject one would want to photograph. If an orthopanchromatic cannot be had, the next best is hyperpanchromatic, and if neither can be found, an orthochromatic film will give pictures which will be satisfactory for most amateurs' purposes.

Unfortunately only Eastman Kodak Company has issued recent detailed information on films. An Eastman booklet just

issued (which appeared after this article was written) shows somewhat (20 to 25%) higher speeds for many of the films listed in Table II. *Panatomic-X* (Type b) in sheet film has also been reinstated. The information about *Anso* and *Defender* film herein is taken from pre-war publications, and in a few cases may not be accurate for the products of these firms as of today.

* * *

For those who prefer infor-

mation in tabular form, the tables on pages 18 and 19 have been prepared. Table I shows the most commonly used film, which have been set into groups, arranged, from top to bottom, in approximate order of their desirability from the point of view of color sensitivity and tonal gradation. They are arranged alphabetically by name of manufacturer in each group, and in order of speed for each manufacturer's films. Table II is self-explanatory. These

tables, however, should not be interpreted as a recommendation to make fine distinctions in the use of films for various purposes, for actually the films for the most part differ little from the average user's standpoint, and the amateur who does not want to make photography needlessly difficult or complex would do well to follow the advice already given in the text and stick to one (or at most two) films for all his work.

Some Popular Detergents, and Fabric and Rug Cleansers

Vapoo, Powder-ene, Enduro Rug Re-Nu, Foamclen, Woolfoam, Salko

Vapoo (Vapoo Products Co., 103 E. 125th St., New York 35, New York) is an old product advertised as a "miracle shampoo for upholstery and rugs." The price is \$1 for a 7-oz. package. When analyzed some years ago, *Vapoo* contained about 22% of trisodium phosphate, 27% borax, 3% sodium metasilicate, 30% of soap, 3% of paradichlorobenzene, 8% of soda ash, and 7% moisture. The value of the materials in the \$1 box amounted to less than 2c, corresponding to a mark-up of 60 times over the cost of the simple and familiar chemicals used as ingredients.

An analysis in 1943 showed *Vapoo* to be an entirely different substance, yet there was no change in brand name. In its later form, *Vapoo* was also a powder but of entirely different composition. It consisted of 25% of sulfated organic detergent similar to *Suds* (see Consumers' Research BULLETIN, May 1944, p. 23) with which was present sodium

chloride and sodium sulfate (substances usually present as impurities in "soapless detergents") totaling 75%.

Another product called *Vapoo All-Surface Cleaner* and sold by the same manufacturer was a liquid which sold at a price of \$1.12 for a 2-quart can. This product when tested in 1940 consisted of close to 99% water, with very small amounts of ammonia, sugar, trisodium phosphate, and a very small amount (1/10%) of an organic sulfated detergent.

Vapoo's change of formula while keeping the same name, is for obvious reasons a disadvantageous practice from the standpoint of the consumer who has a right to assume that a single brand name goes with a single product and no other. The makers of *Vapoo* also made a product called *Arctic Syntex M*, which was *Vapoo* under another name; and with respect to *Syntex M*, they were required by the Federal Trade Commission to discontinue cer-

tain misleading claims in advertising including claims that the article would "sanitize" rugs and upholstery and would remove all stains regardless of cause.

In 1936 a branch of the U.S. Department of Agriculture, which enforced the Insecticide Act at one time, also came down on *Vapoo* for false statements that it would clean and disinfect rugs and upholstery, render them mothproof, and act as an effective insecticide against moths infesting upholstery, mattresses, sofa pillows, automobile upholstery, divans, and sofas.

The later powder form of *Vapoo*, a soap substitute with the usual impurities, is somewhat better adapted to its job of rug cleaning than the earlier product containing alkalis and soap, and would be considerably less harmful to rugs. As was noted in an earlier BULLETIN, consumers are definitely misled when they are persuaded by department store and other

advertising that rugs and upholstery may be safely and well cleaned on the floor by "shampooing."

The use of either soap or soap substitutes for cleaning rugs and upholstery or other heavy fabrics on the floor or on the furniture, is open to serious question. There is no known method or material for cleaning such fabrics at home that can be considered safe and free from possibility of harm to the material. On-the-floor or in-place methods cannot possibly clean properly or completely to the base of the pile; some residues of dirt and soap necessarily remain which cannot be removed by any practicable sponging, cleansing, or on-the-floor rinsing process. Thus there is the likelihood of accelerated deterioration of the fibers, due to the residues of the detergent substances, and much more rapid collection of dirt by the fabric after cleaning than before.

One of *Vapoo's* claims is that it is recommended by leading home economists and that it is suitable for cleaning even badly soiled rugs and upholstery at home. Home economists, if they have indeed recommended *Vapoo* for that use, will be interested in the above brief discussion of *Vapoo's* chemical and advertising history, for the product is hardly well adapted to rug cleaning, and if it were, it would surely be uneconomical for such a job. It is only in very limited sense and hedged about with careful qualifications, that soap or soap-substitutes, or soap-and-alkali mixtures can be considered suited for the cleaning of rugs and upholstery.

Powder-ene. Another rug cleaner which has achieved popularity lately through adver-

tising and publicity in columns of home magazines is *Powder-ene*, alleged to "keep rugs clean—no liquids!—no suds!" "easy-to-use magic." *Powder-ene* is a tan colored, dampish-feeling, coarse powder with a strong odor of kerosene. The directions call for its being applied to a rug by sprinkling and then rubbed in with a long-handled brush. After being left on the rug for an hour it is removed by use of a vacuum cleaner. While the label and the advertising claim that the product "cleans" soiled areas, the only claim made on the principal label is "for keeping rugs and carpets clean" and directions say that badly soiled rugs should be cleaned "by a reliable rug cleaner" with equipment for a complete job.

The composition of *Powder-ene* suggests why it would be a good idea to send your rug to a professional cleaner, for it consists, to the extent of two-thirds, of colloidal clay (known as bentonite), one-tenth wood flour (a sort of fine sawdust), one-sixth petroleum naphtha, the remaining one-twentieth of the mixture being moisture (water) probably present in the bentonite. On account of its naphtha content, *Powder-ene* is flammable, although not violently so.

To make certain regarding the performance of this product in practical use, a careful trial of *Powder-ene* was made on a high-pile Wilton-type rug, following the directions exactly. Working the powder into the rug was found to be a laborious task. When the rug had been thoroughly vacuum-cleaned and then compared with a similar rug which had had the same treatment except for the application of *Powder-ene*,

it was found that the *Powder-ene*-treated rug had a somewhat brighter appearance although it was judged that this would not be noticed by a casual observer. After about 24 hours more powder worked up to the top surface of the rug and it was necessary to vacuum-clean the rug again. Within another few days it was noticed that more of the powder had worked out and created a dust around the edges of the rug on the floor. It would certainly be unwise to follow the *Powder-ene* directions and use the rug with the powder still in it, for it would be tracked over the remainder of the floor.

In general the results of the test indicate that the product is unsatisfactory for its purpose and it is considered that the use of *Powder-ene* would not be worth the considerable effort required in thoroughly working the material into the rug with the brush and then getting it out again by going over repeatedly with the vacuum cleaner. Moreover, the makers of *Powder-ene* admit that the rug may not be clean enough after one application, so that the process may need to be repeated.

Enduro Rug Re-Nu (Midwest Mfg. Co., Detroit) is a product similar to *Powder-ene*; it, too, is to be sprinkled on the rug and worked into it, and is alleged to "dissolve all dirt and grease imbedded in the hidden areas," after being left in the rug for two hours, or over night. Like *Powder-ene*, it is then to be removed with the vacuum cleaner. *Enduro* is found to consist of a "decomposed or amorphous silica," a fine gritty powder, and contained a small quantity of petroleum naphtha and an appreciable, though not a great, amount of naphtha-

lene (familiar in moth flakes and moth balls). Considering that the advice is universally given that rugs should be kept well cleaned and free of all gritty materials in order to prevent their being deteriorated and the fibers cut and worn by the grit, the manufacturer of this product who proposes to add gritty mineral material to the rug seems to be doing very little to help the consumer with his rug maintenance problem.

The use of *Enduro Rug Re-Nu* will involve the same disadvantages and effort, of course, as have been discussed under *Powder-ene* and described in connection with the practical tests carried out on that product. The claim "dissolves all dirt and grease imbedded in the hidden areas" is manifestly misleading to the consumer.

Foamclen is a new brand of cleaner for fabrics, upholstery, and rugs, sold by department stores for 90c for a pint bottle. Like one of the forms of *Vapoo*, the product is a solution of a sulfated organic detergent similar to *Dreft*, *Duponol*, *Sudz*, etc. It is intended to be used by being worked into a foam in a bowl, then applied to the fabric with a sponge or soft brush. The lather is then removed with a slightly damp sponge which is rinsed repeatedly during the process of removal. For clean-

ing rugs, *Foamclen* is mixed with water and the lather used in the same way. The user is warned to "test all fabrics before cleaning" by cleaning thoroughly an inconspicuous spot and letting it dry thoroughly.

The comments made on the use of soap and soap substitutes for shampooing or cleaning rugs on the floor and for cleaning upholstery in place, which appear under the discussion of *Vapoo*, of course apply to use of *Foamclen* for the same purpose.

Woolfoam (Wool Novelty Co., Inc., New York City) is a popular new powdered detergent, strongly promoted by leading department stores, which describes itself as "The Perfect Wool Cleanser." It is intended for the washing of fine wools and woolens. A recent analysis shows *Woolfoam* to be a mixture of a synthetic organic detergent (similar to *Dreft* and *Drene*, as present in *Foamclen*, and in one form of *Vapoo*) with sodium sulfate (usually present as an impurity in soapless detergents). There was also present a small amount of phosphate which was believed to be a minor contaminant in the detergent.

The price of 25c for five ounces is out of line, for such a mixture as *Woolfoam* consists

of about 5% or $\frac{1}{4}$ of an ounce of active material. The rest is chiefly inert material not useful in the laundering process. Of course nearly all "chemical specialty" products, as other material in this article indicates, are likely to be very much overpriced when considered in relation to the value and character of their ingredients and the simple manufacturing and packaging processes involved.

Salko, labeled "the lightning cleaner," is sold for the cleaning of rugs, carpets, automobile upholstery, tile, linoleum, painted walls and woodwork, etc. It is alleged to clean, purify, and preserve. The product is to be used by dissolving one heaping tablespoonful in a quart of boiling water. Like many another chemical detergent or chemical specialty, the product is not at all well suited for some of the uses for which it is recommended by the makers, for it consists of a mixture of sodium soap, sodium carbonate (washing soda), and a sodium silicate. Such substances, as has been mentioned in the discussion of *Vapoo* in an earlier part of this article, are unsuitable for cleaning of fabrics in place, particularly Oriental rugs, carpets, and upholstery for which the market recommends that *Salko* be used.

Off the Editor's Chest

[Continued from page 2]

year when he responded to the WFA's appeal to raise more poultry and had the market so glutted with birds that he could not sell them, except at prices far below his cost of production. Yet this year, chickens, and eggs—which are likewise scarce—are needed in greater quantities than ever to

take the place of the vanishing beef and pork supply. The bitter irony of the whole situation is that there are more beef cattle on the range than ever before in the history of the country. As a result of the War Food Administration's plea to the farmers last year to cut down on hogs, there is a

reduction of 30 percent in the pork supply; this, however, is a strictly *planned* reduction—they wanted it that way.

Earlier this year there was an attempt to pacify meat-hungry consumers with statistics. As we noted in CR's May issue, government officials and others in high

places gave out reassuring statements that meat supplies were reduced in the first quarter of the year only about 8 percent below amounts available in pre-war years. We also reported the estimate of a reputable business journal that the available amount was so badly distributed that consumers in big cities were getting 70 to 90 pounds a year, while those near local slaughter houses would get around 160 pounds a year. Now it seems that these figures were too high. Confronted with angry protests from housewives who just weren't getting any meat, and analyses by observing newspaper reporters who pointed out in print that on the basis of allotted red points, the householder did not have nearly enough points to purchase the per capita annual allotment of 117 pounds of meat and 35.7 pounds of fats and oils a year, Chester Bowles, OPA Administrator, broke down and confessed.

Housewives will just have to eat *statistics*. It appears that the figure of something like 115 pounds of meat per person set by the War Food Administration as the civilian's share of meat was just one of those government figures, characterized in that remark "Figures don't lie" and the answer: "They're not supposed to. They are simply raw material in the hands of the expert." So Mr. Bowles comes up with the explanation that actually only about half of that figure of 115 pounds is available for consumers with ration stamps. (The rest is just what the officials used to make consumers *think* supplies were adequate and reasonably near to normal.) About 15 percent was supposed to be deducted for "shrink-

age" of the animal carcass before it was sold over the butcher's counter. A part of that amount was allocated for canned soups, baby food, pork and beans, and "even pharmaceuticals." Some people get their share of the nation's meat supply by eating in restaurants. In short, according to the OPA's chief, only about 60 pounds of meat on an annual average is supposed to be available at retail counters for consumers' purchase. Since a great many people do not have access to and cannot afford to eat in restaurants and do not use canned soup, baby food containing meat, or pork and beans, in more than strictly trifling amounts, Mr. Bowles' explanation quite obviously does not explain the present shocking mess of governmental failures at rationing and price control at all. Perhaps this is the proper point at which to remind Mr. Bowles that the officially avowed (and only justifiable) purpose of rationing is *the fair division of scarce supplies*; the purpose is certainly not to make scarce supplies still harder to distribute and to buy.

Canada does it much better—without rationing, by *encouraging* production and distribution of needed goods. In the light of Mr. Bowles' confession of complete and distinguished failure to divide up and distribute fairly the large supplies of meat that could be made available from the huge numbers of cattle on the range, it would appear to be in order to suggest that we take a lesson from our neighbors to the north, who have meat in their shops and on the table—take off the controls and let Nature and the system of free enterprise perform their customary functions.

BUY WAR BONDS AND STAMPS

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Tooth decay, effect of amino acid, tryptophane.....	May, 3
Toothbrushes†.....	June, 5-8
Vitamins and vitamin preparations.....	Jan., 3, 12-14; Feb., 3-4; Mar., 4; Apr., 3; May, 21
Waxes, floor†.....	May, 13-16

†indicates that listings of names or brands are included.



PHONOGRAPH RECORDS



By Walter F. Grueninger

Please Note: Prices quoted do not include taxes. In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended.

ORCHESTRA

Gould: *American Salute & Yankee Doodle Went to Town.* Boston Pops Orch. 2 sides, Victor 11-8762. \$1. Themes: "When Johnny Comes Marching Home" and "Yankee Doodle." Slick music that may amuse once or twice.

Interpretation AA
Fidelity of Recording A

Lalo: *Symphonie Espagnole.* Milstein (violin) with The Philadelphia Orchestra under Ormandy. 6 sides, Columbia Set 564. \$3.50. This romantic music usually appeals to those who like a good tune and strong rhythms. Unfortunately the *Intermezzo*, generally omitted in concert, is omitted here, also. At times, I feel there is more passion than the performers reveal and in a few passages the recording sounds as though it were not made at a constant volume level. On the other hand there is concert hall atmosphere here. Summing up—despite a few minor reservations, a desirable set which tops its competitors.

Interpretation AA
Fidelity of Recording A

Liadoff: *Kikimora.* Halle Orchestra under Boult. 2 sides, Victor 11-8729. \$1. This rather slight tone poem concerns Kikimora who grew up in the care of a magician in a wild mountain region. Mature at the age of seven, she spins all night and ponders evil thoughts. Neither the performance nor the recording make the most of the opportunities. My pressing is off center, causing a wow.

Interpretation B
Fidelity of Recording B

Offenbach: *Orpheus in Hades—Overture.* Detroit Symphony Orchestra under Krueger. 2 sides, Victor 11-8761. \$1. A light overture, played with spirit, that has been a favorite for nearly three generations. The slight echo, caused by the empty recording hall, is not as disturbing as the lack of high frequencies.

Interpretation AA
Fidelity of Recording B

Rachmaninoff: *Symphony No. 2.* Philharmonic-Symphony Orchestra of New York under Rodzinski. 12 sides, Columbia Set 569. \$6.50. A 37-year-old symphony occasionally enlivened by beautiful, sweeping melodies and stirring passages. The performance and recording are top notch, superior to competitive Victor Set 239.

Interpretation AA
Fidelity of Recording AA

INSTRUMENTAL

Bach: *Two Part Inventions & Prelude No. 5* from "Six Little Preludes." Balogh (piano). 8 sides, Asch Set 102. \$4.50. Bach wrote this music, it is believed, as a group of piano studies for his son. To most listeners they will sound like exercises, but the connoisseur will welcome them. Recording realistic; performance all that one could hope for. Inasmuch as most sides offer short measure, however, it is unfortunate 12" discs were not used to prevent frequent turning. The prelude is an "extra" to fill side 8.

Interpretation AA
Fidelity of Recording AA

De Falla: *Ritual Fire Dance & Dance of Terror.* Iturbi (piano). 2 sides, Victor 10-1135. 75c. Popular selections from the ballet, *El Amor Brujo*. Commendable in every respect but unable to match the overpowering effect created by a large orchestra for which these compositions were written.

Interpretation AA
Fidelity of Recording AA

VOCAL

Foster: *The Americans Come & Fourdrain: Chevauchee Cosaque.* Richard Crooks (tenor). 2 sides, Victor 10-1150.

75c. Thrilling, dramatic songs—one in English, one in French. Recording excellent.

Interpretation AA
Fidelity of Recording AA

Schubert: *Ave Maria & Shannon: That's an Irish Lullaby.* Rise Stevens (mezzo-soprano). 2 sides, Columbia 7425. \$1. Strange bedfellows. The great song, *Ave Maria*—here orchestra accompanied—receives a performance not really worth adding to the catalog. Overside ditto, excepting that the song is of no consequence.

Interpretation C
Fidelity of Recording A

By Request. Eight Favorite Songs. Nelson Eddy (baritone). 8 sides, Columbia Set 571. \$3.50. A miscellany likely to please those who cherish a catchy melody. The old difficulty of the "expressionless voice" crops up again though "Strange Music" gets out of hand with too much "expression." Included are "Without a Song," "Great Day," "My Message," "Because," "I Love You," "Strange Music," etc.

Interpretation B
Fidelity of Recording AA

LIGHT, POPULAR, FOLK, MISCELLANEOUS

Anderson-Weill: *September Song & Harding: Little Jazz.* Artie Shaw and His Orchestra. 2 sides, Victor 20-1668. 50c. Superb, slow, instrumental foxtrots.

Interpretation AA
Fidelity of Recording AA

Bernstein: *On the Town.* "On the Town" Orchestra and the Victor Chorale conducted by Leonard Bernstein and Robert Shaw. 8 sides, Victor Set 995. \$3.50. Refreshing, if not enduring, songs and ballet music from the current Broadway show, *On the Town*. Performance and recording superb.

Interpretation AA
Fidelity of Recording AA

Bernstein-Comden-Green: *Lonely Town and Lucky to be Me.* Mary Martin (vocalist). 2 sides, Decca 23395. 75c. "Mood" songs from "On the Town." Vocally, Miss Martin is insecure, but she has personality.

Interpretation A
Fidelity of Recording AA

Cahn-Styne: *Saturday Night & Hart-Rodgers: My Funny Valentine.* Hal McIntyre and His Orchestra. 2 sides, Bluebird 30-0837. 35c. Popular foxtrots played colorfully by the orchestra. Ruth Gaylor's singing of *Saturday Night* is peppy but her *Valentine* doesn't stir me.

Interpretation A
Fidelity of Recording AA

Duke: *April in Paris & The Love I Long For.* Dorothy Kirsten (soprano). 2 sides, Victor 10-1137. 75c. Show tunes of little importance sung with less expression than I look for.

Interpretation B
Fidelity of Recording A

Gordon-Warren: *In Acapulco & The More I See You.* Georgia Gibbs (soprano). 2 sides, Victor 20-1660. 50c. Interesting coupling of contrasting songs from the film "Billie Rose's Diamond Horseshoe." Miss Gibbs has vocal style.

Interpretation AA
Fidelity of Recording AA

Grieg-Wright-Forrest: *Strange Music.* Fred Waring and His Concert Vochestra & *Chopin: Waltz in C Sharp Minor.* Fred Waring and His Concert Pennsylvanians. 2 sides, Decca 23377. 75c. The "waltz," played in 2/4 time, bears no resemblance to anything Chopin composed. Overside leaves little of Grieg, either. The musicians play what they must expertly. The performers do their job well but this is no record for my collection.

Interpretation AA
Fidelity of Recording A

Hammerstein-Rodgers: *Oh, What a Beautiful Mornin' & The Surrey with the Fringe on Top.* Nelson Eddy (baritone). 2 sides, Columbia 4314. 75c. One can barely detect the orchestral accompaniment due to very poor microphone balance. Eddy adapts himself to the style of this music from "Oklahoma" though his performance is not distinctive.

Interpretation A
Fidelity of Recording B

Hammerstein-Kern: *Of Man River & Koehler-Arlen: Stormy Weather.* Frank Sinatra (vocalist). 2 sides, Columbia 55037. \$1. Treated in the usual Sinatra manner which is not good enough for me.

Interpretation C
Fidelity of Recording AA

Harburg-Kern: *More and More & Adamson-McHugh: I Wish We Didn't Have to Say Goodnight.* Perry Como (baritone). 2 sides, Victor 20-1630. 50c. Best work of this soloist I have yet come across. Popular ballads. Interpretation AA
Fidelity of Recording AA

Kern: *Songs.* Rise Stevens (mezzo-soprano). 8 sides, Columbia Set 568. \$4.50. Among the best of Jerome Kern. On first playing, Miss Stevens' voice sounded muffled but that objectionable quality disappeared as the manufacturing process was completed on my turntable by playing the record a few times with a chromium needle, thus cleaning the grooves. Miss Stevens has command of the idiom, though you are likely to expect less of an opera singer. The orchestra plays fancy accompaniments, well recorded. The selections include "Can't Help Lovin' dat Man," "They Didn't Believe Me," "Smoke Gets in Your Eyes," "Look for the Silver Lining," etc.

Interpretation AA
Fidelity of Recording AA

Loesser: *Rodger Young & Crawford: The Army Air Corps.* John Charles Thomas (baritone). 2 sides, Victor 10-1167. 75c. Army marching songs shouted as well as sung by Thomas, chorus, and orchestra. Recording, muffled during early playings, cleared up.

Interpretation B
Fidelity of Recording A

Parish-Markush: *Take Me in Your Arms & Burke-Van Heusen:* *Yah-ta-la.* Four King Sisters (vocal quartet). 2 sides, Victor 45-0000. 75c. Popular songs sung in four part, slick harmony. Good work of its kind. Interpretation AA
Fidelity of Recording AA

Porter: *Begin the Beguine & Davis-Sherman-Ramirez: Lover Man.* Eddie Heywood & His Orchestra. 2 sides, Decca 23398. 75c. *Begin the Beguine* sounds tame as a stylized piano solo, and the slow foxtrot over side is no more exciting.

Interpretation B
Fidelity of Recording A

Rodgers: *Oklahoma Selections.*

Boston Pops Orchestra under Fiedler. 2 sides, Victor 11-8742. \$1.

Interpretation B
Fidelity of Recording B

Andre Kostelanetz & His Orchestra. 2 sides, Columbia 7417. \$1.

Interpretation AA
Fidelity of Recording AA

The least effective arrangement and performance of this music I have yet heard is the Boston Pops' whose symphonic players possess little feeling for our popular music. On the other hand, Kostelanetz' versatile radio group plays with the proper zest—and is better recorded. Boston Pops' recording features brass; Kostelanetz', strings.

Russell-Ellington: *I Didn't Know About You & George-Ellington:* *I Ain't Got Nothin' But the Blues.* Duke Ellington & His Orchestra. 2 sides, Victor 20-1623. 50c. Slow foxtrots with half of each side devoted to a vocal.

Interpretation A
Fidelity of Recording AA

Sciver-Miller: *The Best Part of Travel & McEnery-Miller: I'm a Convict With Old Glory in My Heart.* Britt (vocalist). 2 sides, Bluebird 33-0517. 35c. Slow, sentimental foxtrots city folks are likely to term "corny."

Interpretation B
Fidelity of Recording A

Shapiro-Pascal-Charig: *Twelve O'Clock And All Is Well & I Wanna Get Married.* Gertrude Niesen (soprano). 2 sides, Decca 23382. 75c. The star of the Broadway musical, "Follow the Girls," records two of the hit numbers. One is suggestive, the other dull.

Interpretation AA
Fidelity of Recording AA

Shaw-Harding: *The Sad Sack & The Grapetown Grapple.* Artie Shaw and His Gramercy Five. 2 sides, Victor 20-1647. 50c. Mildly interesting instrumental foxtrots.

Interpretation A
Fidelity of Recording B

Strauss: *Kings of the Waltz.* London Philharmonic Orchestra under Goehr. 2 sides, Victor 11-8696. \$1. Neither fish, fowl, nor flesh, but a potpourri of themes selected from waltzes of four Strausses. The performance is exceedingly mannered.

Interpretation C
Fidelity of Recording A

Strauss: *Waltzes.* Robert Stolz and His Orchestra. 8 sides, Decca Set 392. \$3.50. Abbreviated versions of popular waltzes played for dancing. Included are "Blue Danube," "Tales from the Vienna Woods," "Emperor," "Artist's Life," etc.

Interpretation AA
Fidelity of Recording A

John Kirby and His Orchestra. 6 sides, Asch Set 357. \$3.50. Uncommonly good performances of jazz specialty numbers by a seven piece band. Included are "Maxine Dengoza," "Passepied," "K. C. Caboose," "Mop Mop," "J. K. Special," etc.

Interpretation AA
Fidelity of Recording B

Mary Lou Williams and Orchestra. 6 sides, Asch Set 552. \$3.50. Unique arrangements, in many moods, employing the jazz idiom. Small instrumental groups. Piano too far from the microphone. Audible surfaces. Included are "Stardust," "Lady Be Good," "Jgon Mili Jam Session," "Man o' Mine," etc.

Interpretation AA
Fidelity of Recording A

The Three Caballeros. Charles Wolcott and His Orchestra and Singers. 6 sides, Decca Set 373. \$2.75. Vocal and instrumental music performed in the Walt Disney film. Neither the rich orchestration nor most of the singing is in the best Latin American style but on the whole the album entertains.

Interpretation A
Fidelity of Recording A

Polka. Frank Novak and the Polkateers (9 sides) & *The Polkateers* (1 side). Musicraft Set 61. \$4.25. Eight polkas, two waltzes, all suitable for dancing. A few sides have vocals. Frank Novak conducts a small orchestra. *The Polkateers* on the one disc which does not bear Novak's name sounds like a larger group. It turns in the best performance in the album. Run of the mill music. Audible surfaces.

Interpretation A
Fidelity of Recording A

Go Down Moses & Water Boy. Cordon (bass). 2 sides, Victor 10-1114. 75c. Mr. Cordon possesses a rich voice but the emotion of *Water Boy*, in particular, has been more eloquently expressed by lesser artists.

Interpretation B
Fidelity of Recording A

Benny Goodman's Sextet. Columbia Set C102. \$2.50. A collection of previously released discs. The album blurb states that Goodman considers these "his finest Columbia recordings." Included are "Rose Room," "Air Mail Special," "I Found a New Baby," "Poor Butterfly," etc. Quiet surfaces.

Interpretation A
Fidelity of Recording A

After Dark. Morton Gould & His Orchestra. 8 sides, Columbia Set C 107. \$4.50. "Symphonic" treatment by Mr. Gould of eight tunes I enjoy most in their common garb. The musicians play well what's put before them. Recording tends toward harshness. Included are "Besame Mucho," "Temptation," "Speak Low," "Dancing in the Dark," "Old Black Magic," etc.

Interpretation AA
Fidelity of Recording B

Ratings of Motion Pictures

THIS section aims to give critical consumers a digest of opinion from a number of reviews, ranging from the motion picture trade press to Parents' Magazine, which rates motion pictures not only on their quality as entertainment but on their suitability in various aspects for children.

It should be emphasized that the motion picture ratings which follow do not represent the judgment of a single person but are based on an analysis of the reviews appearing in some 19 different periodicals. (See January 1945 issue for the sources of the reviews.)

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), and C (not recommended).

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

Descriptive abbreviations are as follows:

adv—adventure	mus—musical
bio—biography	mys—mystery
car—cartoon	nov—dramatization of a novel
com—comedy	rom—romance
cri—crime and capture of criminals	soc—social-problem drama
doc—documentary	t—in technicolor
dr—drama	trav—travelogue
fan—fantasy	war—dealing with the lives of people in wartime
hist—founded on historical incident	wes—western
mel—melodrama	

A	B	C	
—	5		Adventures of Kitty O'Day.....cri-com A
—	10	4	Affairs of Susan, The.....com A
—	3	4	Alaska.....mus-mel A
1	10	3	And Now Tomorrow.....nov A
—	2	5	Army Wives.....war-com A
—	4	12	Belle of the Yukon.....mus-mel-t A
—	3	—	Bells of Rosarita, The.....mus-wes AYC
—	7	8	Betrayal from the East.....war-mel A
—	6	6	Between Two Women.....dr A
—	3	7	Big Bonanza, The.....wes A
—	3	5	Big Show-Off, The.....mus-com A
—	3	5	Block Busters.....com A
—	2	6	Blonde Fever.....com A
1	4	—	Blood on The Sun.....war-mel A
—	3	4	Bluebeard.....cri-mel A
—	11	3	Body Snatcher.....cri-mel A
—	—	4	Boston Blackie
—	2	5	Booked on Suspicion.....cri-mel AYC
—	1	6	Bowery Champs.....mel AYC
—	3	8	Bowery to Broadway.....mus-com A
—	11	2	Brazil.....mus-com AYC
—	8	3	Brewster's Millions.....com A
—	11	3	Brighton Strangler, The.....cri-mel A
—	2	7	Bring On the Girls.....war-mus-com-t A
—	—	—	Bullfighters, The.....com A
2	11	4	Can't Help Singing.....mus-dr AYC
—	8	6	Carolina Blues.....mus-com A
—	—	5	Castle of Crimes.....mys-mel A
—	2	1	Cheyenne Wildcat.....wes A
—	2	4	Chicago Kid.....cri-mel A
—	5	6	China Sky.....war-mel A
—	3	3	China's Little Devils.....war-mel A
—	6	5	Circumstantial Evidence.....cri-mel A
—	1	3	Cisco Kid Returns.....wes AYC
1	7	1	Clock, The.....war-rom A
—	4	—	Code of the Prairie.....wes A
—	—	—	Col. Blimp (See Life and Death of)
—	7	5	Conspirators, The.....war-mel A
4	4	5	Corn Is Green, The.....dr A

A	B	C	
—	8	5	Counter-Attack.....war-dr A
—	1	2	Cowboy Canteen.....mus-wes AYC
—	3	—	Cowboy from Lonesome River.....mus-wes AYC
—	—	3	Crazy Knights.....cri-mel AYC
—	5	4	Crime Doctor's Courage, The.....mys-dr A
—	5	1	Crime, Inc.....cri-mel AYC
—	5	1	Cyclone Prairie Rangers.....mus-wes AYC
—	2	7	Dancing in Manhattan.....mel A
—	1	6	Dangerous Passage.....mel A
—	11	4	Dark Waters.....cri-mel A
—	1	2	Dawn Over France.....hist-dr A
—	5	6	Delightfully Dangerous.....mus-com A
—	5	7	Destiny.....mel A
1	9	3	Diamond Horseshoe.....mus-com-t A
—	7	8	Dillinger.....cri-mel A
—	3	3	Docks of New York.....cri-mel AYC
—	5	5	Double Exposure.....cri-com A
—	5	6	Eadie Was a Lady.....mus-com A
—	4	7	Earl Carroll Vanities.....mus-com A
3	6	5	Enchanted Cottage, The.....dr A
—	2	4	End of the Road.....cri-mel A
—	2	1	Enemy of the Law.....mus-wes AYC
—	10	—	Enter Arsene Lupin.....cri-mel A
—	1	6	Escape in the Desert.....war-mel A
—	3	4	Escape in the Fog.....war-mys A
—	3	3	Eve Knew Her Apples.....mus-com A
—	10	4	Experiment Perilous.....cri-dr A
—	5	5	Faces in the Fog.....soc-dr A
—	5	5	Falcon in Hollywood.....cri-mys A
—	—	—	Farewell, My Lovely (See Murder, My Sweet)
—	1	5	Fashion Model.....cri-mel AYC
12	3	—	Fighting Lady, The.....war-doc-t AYC
—	9	3	Flame of Barbary Coast.....mus-mel A
—	4	2	Fog Island.....mys-mel A
—	5	7	Frisco Sal.....mus-dr A
—	4	5	G. I. Honeymoon.....war-com A
—	3	—	Gangsters of the Frontier.....mus-wes AYC
—	6	3	Gentle Annie.....wes A
—	2	1	Ghost Guns.....wes AYC
—	3	8	Girl Rush.....mus-com A
2	7	3	God is My Co-Pilot.....war-dr AY
—	1	8	Goin' to Town.....com A
—	5	5	Great Flamarion, The.....cri-mel A
—	8	2	Grissly's Millions.....cri-mys A
1	13	3	Guest in the House.....cri-mel A
—	4	—	Gun Smoke.....wes AYC
—	5	2	Guy, a Gal, and a Pal, A.....rom A
—	13	3	Hangover Square.....cri-mel A
—	4	10	Having Wonderful Crime.....cri-com A
—	1	9	Her Lucky Night.....mus-com AYC
—	9	5	Here Come the Co-Eds.....mus-com AYC
—	13	2	Here Come the Waves.....war-mus-com A
—	8	—	Hi, Beautiful.....mus-com A
—	3	7	High Powered.....mel A
—	3	3	Hitchhike to Happiness.....mus-com AYC
—	4	1	Hollywood and Vine.....com AYC
1	8	3	Hollywood Canteen.....mus-com A
—	2	4	Honeymoon Ahead.....mus-com A
—	4	7	Horn Blows at Midnight, The.....com A
1	9	3	Hotel Berlin.....war-mel A
—	8	4	House of Fear.....mys-mel AYC
1	1	9	House of Frankenstein.....cri-mel A
—	1	6	I Accuse My Parents.....mus-mel A
—	6	2	I Love a Mystery.....mys A
—	1	4	Identity Unknown.....war-dr AYC
2	15	1	I'll Be Seeing You.....war-dr A
—	3	8	I'll Remember April.....mus-dr A
—	1	5	I'm From Arkansas.....mus-com A
—	13	3	Irish Eyes Are Smiling.....mus-dr-t A
—	8	7	It's a Pleasure.....mus-com-t A
1	11	—	It's in the Bag.....cri-com AYC

A	B	C		
—	—	7	Jade Mask, The.....	mys-mel A
—	—	—	John Dillinger (See Dillinger)	
—	5	10	Keep Your Powder Dry.....	war-dr A
6	9	1	Keys of the Kingdom.....	dr A
—	1	4	Kid Sister, The.....	com A
—	1	4	Lady Confesses, The.....	cri-mel A
1	5	6	Lake Placid Serenade.....	mus-com AYC
—	2	7	Last Ride, The.....	cri-mel A
2	16	—	Laura.....	mys-mel A
—	—	3	Law of the Valley.....	wes AYC
—	7	3	Leave It to Blondie.....	com AYC
—	1	7	Leave It to the Irish.....	cri-mel A
—	4	5	Let's Go Steady.....	mus-com AYC
4	8	2	Life and Death of Col. Blimp.....	war-dr-t A
—	7	—	Lights of Old Santa Fe.....	mus-wes AYC
—	6	8	Lost in a Harem.....	mus-com AYC
—	4	4	Main Street After Dark.....	cri-dr A
—	7	4	Man in Half Moon Street, The.....	mys-mel A
—	1	6	Man Who Walked Alone.....	war-com A
—	7	4	Mark of the Whistler, The.....	mys-mel A
—	—	3	Marked for Murder.....	mus-wes AYC
—	3	3	Marked Trails.....	wes AYC
—	11	4	Master Race, The.....	war-dr A
1	11	—	Medal for Benny, A.....	dr A
5	10	—	Meet Me in St. Louis.....	mus-dr-t AYC
—	4	7	Meet Miss Bobby Socks.....	mus-com AYC
2	10	5	Ministry of Fear.....	war-mel A
—	1	3	Missing Corpse, The.....	cri-com A
—	5	3	Missing Juror, The.....	cri-mel A
—	11	2	Molly and Me.....	mus-com A
—	2	2	Moulin Rouge.....	mus-com A
3	5	4	Mr. Emmanuel.....	war-dr A
—	4	5	Mummy's Curse, The.....	mys-mel A
—	4	3	Murder, He Says.....	cri-com A
—	3	8	Murder in the Blue Room.....	mus-cri-com A
—	15	2	Murder, My Sweet.....	cri-mys A
—	14	2	Music for Millions.....	mus-dr AYC
—	4	4	My Gal Loves Music.....	mus-com A
—	4	4	National Barn Dance.....	mus-com AYC
6	10	1	National Velvet.....	dr-t AYC
—	3	—	Navajo Trail, The.....	wes AYC
—	5	3	Nevada.....	wes AYC
—	2	6	Night Club Girl.....	mus-com A
3	6	6	None But the Lonely Heart.....	nov A
—	4	5	Nothing But Trouble.....	com AYC
5	6	2	Objective, Burma.....	war-mel A
—	2	1	Old Texas Trail, The.....	mus-wes AYC
1	4	5	On Approval.....	com A
—	4	4	One Body Too Many.....	mys-mel A
—	1	6	One Mysterious Night.....	cri-mel AYC
2	13	3	Our Hearts Were Young and Gay.....	com AYC
1	8	7	Pan-Americana.....	mus-com A
1	8	3	Patrick the Great.....	mus-com AYC
—	9	3	Pearl of Death.....	cri-mel AYC
—	1	3	Phantom of 42nd St., The.....	cri-mel A
—	4	2	Phantom Speaks, The.....	mys-mel A
—	7	8	Picture of Dorian Gray, The.....	dr A
—	5	3	Pillow to Post.....	war-com A
—	2	6	Power of the Whistler.....	mys-mel A
—	13	4	Practically Yours.....	war-com A
2	10	2	Princess and the Pirate, The.....	ado-t A
—	4	4	Rainbow, The.....	war-dr A
—	5	10	Rainbow Island.....	mel-t A
—	4	5	Randolph Family, The.....	com A
—	6	3	Reckless Age.....	mus-com AYC
—	5	—	Riders of Santa Fe.....	mus-wes AYC
—	3	—	Rockin' in the Rockies.....	mus-wes AYC
—	6	—	Rogue's Gallery.....	cri-mel A
—	4	1	Rough Riding Justice.....	wes AYC
—	1	9	Rough, Tough, and Ready.....	war-com A
1	6	6	Roughly Speaking.....	dr A
1	9	6	Royal Scandal, A.....	com A
—	2	2	Saddle Leather Law.....	wes AYC
—	4	2	Sagebrush Heroes.....	mus-wes AYC

A	B	C		
—	5	9	Salome, Where She Danced.....	mus-dr-t A
1	8	6	Salty O'Rourke.....	mel A
—	—	6	Scared Stiff.....	mys-com AYC
—	3	3	Scarlet Clue, The.....	mys-mel A
—	4	8	See My Lawyer.....	mus-com AYC
—	4	5	Sergeant Mike.....	war-dr AYC
—	3	4	Shadow of Suspicion.....	cri-com AYC
—	2	1	Shanghai Drama, The.....	mel A
—	4	4	She Gets Her Man.....	cri-com AYC
—	2	1	Sheriff of Las Vegas.....	wes AYC
—	2	1	Sheriff of Sundown.....	wes AYC
—	5	5	She's a Sweetheart.....	war-mus-dr AYC
1	4	—	Silver Fleet, The.....	war-mel A
—	3	1	Sing Me a Song of Texas.....	mus-wes AYC
—	3	5	Singing Sheriff, The.....	mus-com AYC
—	8	7	Something for the Boys.....	mus-com A
1	4	1	Son of Lassie.....	war-mel-t AYC
—	2	5	Song for Miss Julie, A.....	mus-com A
—	9	—	Song of the Sarong, The.....	mus-ado A
6	8	3	Song to Remember, A.....	hist-dr-t A
—	5	2	Southerner, The.....	soc-dr A
—	2	3	Spell of Amy Nugent, The.....	mel A
—	2	1	Stagecoach to Monterey.....	wes AYC
—	4	5	Strange Affair.....	mys-com A
—	6	—	Strange Illusion.....	cri-mel AY
—	6	8	Sudan.....	mus-mel-t A
1	13	2	Sunday Dinner for a Soldier.....	war-com AYC
1	11	4	Suspect, The.....	cri-mel A
—	1	2	Swing in the Saddle.....	mus-wes AYC
—	—	6	Swing Out, Sister.....	mus-com A
—	2	6	Tahiti Nights.....	mus-com A
2	11	1	Tall in the Saddle.....	wes AYC
—	5	5	Tarzan and Amazons.....	adv AYC
—	1	6	That's My Baby.....	mus-com AYC
—	3	—	That's the Spirit.....	mus-com A
—	4	—	There Goes Kelly.....	mus-com AYC
—	2	3	They Came to a City.....	jan A
—	5	2	They Shall Have Faith.....	dr AYC
—	10	5	Thin Man Goes Home, The.....	cri-mel A
8	8	—	Thirty Seconds Over Tokyo.....	war-dr A
—	8	4	This Man's Navy.....	war-dr AYC
—	2	3	Thoroughbreds.....	mel A
—	4	2	Those Endearing Young Charms.....	war-rom A
8	5	5	Three Caballeros, The.....	mus-car-t AYC
—	3	3	Three Hours.....	war-dr A
—	12	4	3 Is a Family.....	com A
1	5	2	Thrill of a Romance.....	mus-com-t A
3	8	1	Thunder Rock.....	soc-dr A
1	12	1	Thunderhead, Son of Flicka.....	wes-dr-t AYC
—	4	10	Till We Meet Again.....	war-mel A
—	13	2	To Have And Have Not.....	war-mel A
1	12	3	Together Again.....	com A
3	13	2	Tomorrow the World.....	war-dr A
1	12	5	Tonight and Every Night.....	war-mus-com-t A
1	5	3	Town Went Wild, The.....	com AYC
7	10	—	Tree Grows in Brooklyn, A.....	dr AY
—	3	6	Two O'Clock Courage.....	cri-mel A
—	1	6	Under Western Skies.....	mus-wes AYC
—	4	9	Unseen, The.....	mys-mel A
—	2	6	Unwritten Code.....	war-mel A
—	5	3	Utah.....	mus-wes AYC
2	8	1	Valley of Decision, The.....	dr A
—	1	6	Vampire's Ghost, The.....	mys-mel A
—	8	4	Very Thought of You, The.....	war-com A
—	4	—	Vigilantes of Dodge City.....	wes AYC
—	2	5	Wait for Me.....	war-dr A
—	5	1	West of the Rio Grande.....	wes AYC
—	5	3	What a Blonde.....	com A
—	6	2	When the Lights Go On Again.....	war-dr AYC
6	8	2	Winged Victory.....	war-mus-dr A
—	12	2	Without Love.....	rom A
5	11	—	Woman in the Window, The.....	mys-mel A
1	5	—	Wonder Man, The.....	mus-com-t A
—	4	5	Youth on Trial.....	dr A
—	1	8	Zombies on Broadway.....	com A
—	—	8	Zoya.....	war-dr A

The Consumers' Observation Post

[Continued from page 4]

a suitable philosophical adjustment to difficult conditions, many people have taken the "easy way" and resorted to drugs to put them to sleep. The essential ingredient of many of these preparations is some form or derivative of barbituric acid. The occasional use of such sedatives, particularly when prescribed by a physician for treatment of a specific condition, is not considered harmful. The danger arises from indiscriminate use until they become habit-forming. Long-continued use may result in any one of a number of ill-effects, ranging from a mild skin rash to a weakening of the memory and even death. In one city alone, 60 barbiturate drunks were "doing time" in jail.

* * *

RECOMMENDATIONS FOR THE USE OF CANDY by young children have been frowned on by the Council on Foods and Nutrition of the American Medical Association. After considering the question of advertisements of candy in the A.M.A.'s Journal, the Council decided that such advertising should educate the public in judicious use of candy as a food substance rather than attempt to increase the overall consumption of candy and that the recommendation of the use of candy by children could only be detrimental to their proper nutrition.

* * *

SHOES FOR CHILDREN will take second place only to the shoe needs of the Army and Navy, reports the Wall Street Journal. The stocks of children's shoes are at such a low state that it is said when the OPA contemplated issuing an extra children's shoe stamp in the spring, they were obliged to abandon the idea because there just weren't that many shoes in the stores. Grown-ups will have to call on the reserves in their closets, while the children get taken care of. It appears that the shoe factories lack labor, leather, findings such as lining fabrics, brass eyelets, shoelaces—just about everything they need to make shoes, in fact.

* * *

A COMBINATION REFRIGERATOR-FREEZER for the home kitchen is scheduled by the Edison General Electric Appliance Company for distribution to consumers about the same time as the conventional electric refrigerator. The company's

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announcement describes the new addition to the Hotpoint line as having two separate compressors, powered by two motors, each independent of the other. The first model will have 8 cu. ft. of refrigeration storage space, and 2 cu. ft. of freezing compartment which will hold up to 64 lb. of food at temperatures below zero. The price, not yet announced, will, of course, be higher than for the standard refrigerator alone.

* * *

Kleen-A-Brush, a brush cleaner made by The Sheffield Bronze Powder and Stencil Co., Cleveland, and sold at 10 cents in a cardboard box with paper labeling, is one of the typical alkaline brush cleaners widely sold in department, hardware, and household specialty stores. Analysis shows this product to consist essentially of 97% trisodium phosphate and 3% sodium carbonate. Brush cleaners of this type, though in very common use, and sold widely in house-furnishing, hardware, paint, and 10-cent stores, cannot be recommended for general use in cleaning paint brushes. Almost all the powders sold for brush-cleaning purposes are strongly alkaline, and hence there will be very few brushes with which they can safely be used

* * *

Likwidator (Allied Products Co., Denver), a rat and mouse poison selling at 50 cents for a 6-oz. bottle, was found on analysis to be a suspension of about 3% of arsenious oxide in water, together with water-soluble red dye. This composition is typical of commercial rat poisons. However, arsenic and its compounds are somewhat variable in their effects, and rats that survive one dose will refuse to consume the substance a second time. Such poisons are thus ineffective unless used in conjunction with other rat poisons. The extremely toxic character of arsenical poisons, of course, puts them at a serious disadvantage compared with such a material as red squill powder, which is relatively non-poisonous to human beings and to domestic animals.

* * *

Liquid Wrench is a product recommended for various purposes in the auto shop, of which the most important from the consumer's standpoint is the freeing of stubborn (rusted or corroded) nuts and bolts. The product, which is a thin, oily, dark green flammable liquid, sells at \$1.35 for a one-quart tin. It was found on analysis to consist of a crude liquid coal tar product similar to a gas house drip, containing approximately 30% of a neutral coal-tar oil. Both are very common and cheap raw materials, by-products of city-gas production and of coal distillation, worth a cent or so per gallon when purchased in commercial quantities.

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Wax Paper Roll Holder



THE gadget illustrated above is intended to serve as a convenient support for a roll of wax paper in the kitchen. The idea is a good one, but the design is unsatisfactory, with the result that the appliance (which has been widely sold in

10-cent stores) falls a good deal short of fulfilling its intended function in a satisfactory way. The spring shown within the roll, over which the roll of paper is slipped, is intended to provide a quick and convenient way to hold the roll in place, ready for use; in practice, however, the roll like as not goes into an oblique or eccentric position or fits so loosely that the paper does not feed from it properly. Another disadvantage is that friction at the bearing or axle of the device is so great that the unwinding of the paper is often unsatisfactory and un-

certain.

This type of appliance, if properly designed with consideration given to the engineering factors involved and if less cheaply built, would be a useful device for almost any kitchen; we hope some manufacturer may give consideration to producing a good one, for all the usual methods and devices available for supporting a roll of wax paper and feeding from it for kitchen use in wrapping foods for the lunch box or for refrigerator storage seem pretty unsatisfactory, for one reason and another.

Nu-Nap Process

SOMETIMES a well cared for garment that is still in style must be discarded because the nap has worn off the fabric or, worse still, the fabric has worn shiny in spots. A process called *Nu-Nap* has been widely advertised of late as correcting both these common faults. Consumers' Research recently had several men's suits "reconditioned" by the process to determine its effectiveness and the effects produced on the fabrics.

The suits were considerably improved in appearance by the treatment, according to the opinions expressed by the owners. The shine was removed from the suits, but the worsted fabric of one was changed to something resembling flannel. The process had the effect of increasing the size of the garments slightly. (Increases in measurements in a man's wor-

sted suit up to about 3% and in one exceptional case up to about 8% were observed. In an extreme or unusual case, the degree of enlargement of suit dimensions might perhaps prove to be objectionable.) One suit still looked well after about 35 days' wearing over a two-month period, during which it was pressed occasionally (at home). The rayon lining of one suit was measured also and was found to have gained in size an amount comparable to the gain of the suit fabric itself.

The tests made by CR indicate that the *Nu-Nap* process is capable of removing shine and improving the appearance of worn garments of the types used in the investigations. It is not possible to predict that fabrics of certain yarns and fabric structures may not change appreciably in dimensions when subjected to this reconditioning process. On that point a guarantee by the *Nu-Nap* processor should be in hand with respect to the particular garment before the work is done. As has been noted, worsted and other hard-finished fabrics may

be expected to look different after processing, since they will then have something of a nap, but this ordinarily would be less objectionable than the previous condition of the suit, especially if the garment was so badly worn that it was becoming unsightly and close to unwearable. Consumers' Research made no tests on silk or rayon fabrics, which it is claimed can also be reconditioned by the *Nu-Nap* process.

The charge for reprocessing a man's three-piece suit was \$5. Overcoats, topcoats, and dresses are also processed for \$5, while the charge for skirts, suit coats, slacks, and trousers is \$2.50. The method appears to be licensed to different outlets, and where available can be found in the phone book under the name *Nu-Nap* or *Nu-Nap Process Co. or Agency*. Anyone wanting the service and not finding it available locally may find it desirable to communicate with the New York outlet, Bestway Shine Removing Co., Inc., 416 Madison Ave., New York 17, New York.

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